Lesson-9: Decimals

12 Periods (40 minutes each)

Learn Better (Main Coursebook), Stay Ahead (Workbook), Book of Holistic Teaching, Book of Project Ideas, CRM signs, Poster

Animation, Animated Activities, Dictionary, eBook, Explainer Video, HOTS, I Explain, Infographic, Mental Maths, Slideshow, Quiz, Test Generator

Confirming better: I am happy to be part of my country.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand and use decimals effectively.
- to accurately read and write decimal numbers.
- to relate decimals practically to daily life.
- to confidently convert between decimals and fractions.
- to strengthen reasoning through decimal-based problems.
- to collaborate with peers on decimal-related tasks.
- to connect mathematical learning with socio-emotional values.

Methodology

Period 1

Teacher: Good morning, students. Today, let us start with a quick and interesting activity.

SHOULD DO — 5 MIN.

Teacher: You already know about fractions, right? A fraction shows a part of something whole. For example, if you read half of a storybook, you say $\frac{1}{2}$.

Teacher: Now, imagine you run a race and your teacher tells you that you finished the race in 9 and a half seconds. But what if there is another way to say this, without using a fraction?

Teacher: There is a special way we can show parts of numbers without fractions. We can use decimals. It looks like a little dot placed between numbers.

Teacher: Do you know what the dot in numbers like 9.5 is called? It is called a decimal point.

Teacher: We will explore more about these decimals today. Are you curious to find out how we use decimals in daily life? Let us learn more.

Confirming better

Teacher: Before we dive into the new topic, let us take a moment to discuss something important. Who will read the 'confirming better' statement.

SHOULD DO — 5 MIN.

Teacher: 'I am happy to be part of my country.' Can anyone share what this means to you?

Teacher: Yes, it is important to feel proud and happy about the place where we live and this helps us contribute positively to our community.

Teacher: Can you think of how feeling happy about where you live helps you grow as a person?

Teacher: Well done, everyone. Let us move forward with our lesson on decimals.

Teacher: We will begin a new chapter, Decimals. I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format in your notebooks.

SHOULD DO — 10 MIN.

K	W	L

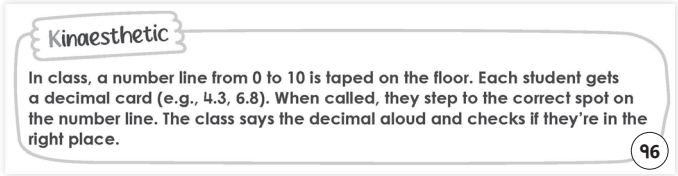
Teacher: Take a few minutes to think and write. If you have any questions, feel free to ask.

Teacher: You all did an amazing work in this activity. Let us move to Re-KAP activities. We will use Kinaesthetic, Auditory and Pictorial activities today to make our learning exciting. Let us start with the Kinaesthetic activity.

Kinaesthetic

Teacher: Everybody, please open page 96 in your Main Coursebook. Who will read and explain the activity?

MUST DO
10 MIN.



(Scaffold the students to complete the activity.)

Teacher: Excellent effort. What did you notice?

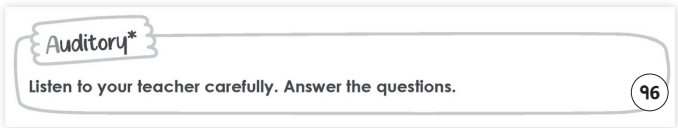
Teacher: Yes, each decimal has a specific place it belongs to. The number line helps us see the relationship between numbers, including decimals.

You may show the **eBook** given on the digital platform.

Auditory

Teacher: Now, listen carefully as I read out a set of questions.

MUST DO
5 MIN.



Teacher: Rohan eats $\frac{7}{8}$ part of his uttapam, while Rita eats $\frac{5}{8}$ part of her uttapam.

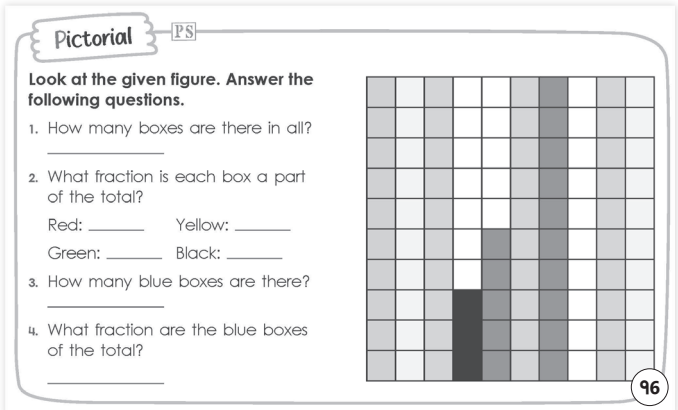
1. Who eats more uttapam?
2. What are the numerators and denominators in these fractions?

You may show the **Dictionary** given on the digital platform.

Pictorial

Teacher: Open your books to page 96. Look at the pictures. What do we need to do here?

MUST DO
5 MIN.



Teacher: Yes, answer the questions. How many boxes are there in total?

(Scaffold the students to complete the activity.)

Teacher: Well done, everyone. Let us give ourselves a huge round of applause for your hard work. See you in the next class.

Differentiated Activities

110 km/hr

Draw a rectangle and divide it into 8 equal parts. Colour 3 parts and write the fraction for the coloured part.

80 km/hr

Draw a rectangular bar and divide it into 4 equal parts. Colour 2 parts and write the fraction for the coloured part.

40 km/hr

Use 10 objects. Divide them into two equal groups and write the fraction of objects in each group.

Home Task

Draw a simple object, like a flower or a star. Divide it into 6 equal parts and colour half parts. Write the fraction for the coloured part.

Period 2

Teacher: Good morning, students. How are you today?

Teacher: Today, let us start by thinking about something interesting. Have you ever noticed sometimes things do not measure exactly as whole numbers?

SHOULD DO
5 MIN.

Teacher: Imagine you have planted a small plant and every day you check how tall it has grown. On one day, it is taller than 4 cm but not yet 5 cm. How do you think we can clearly write this measurement?

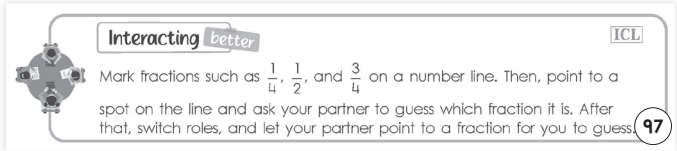
Teacher: Yes, there is a special way to write these numbers. We use something called decimals. Decimals help us to show parts of numbers easily.

Teacher: Curious to learn more about decimals? Let us explore together.

Interacting better

Teacher: Open your books to the 'Interacting better' section, given on page 97. In this activity, you will work in pairs to mark fractions like $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ on a number line.

MUST DO
5 MIN.



Teacher: You will take turns pointing to a spot on the number line and asking your partner to guess which fraction it represents.

Teacher: Then, you will switch roles and let your partner point to a fraction for you to guess.

Teacher: I will walk around and guide you if you need help.

(Use **CRM signs** to settle the class.)

MUST DO

15 MIN.

You may show the **Animation** given on the digital platform.

Teacher: Now, let us turn to the story on page 97 of the Main Coursebook.

Teacher: Before we read, let us think. If three friends share the fruits in a bowl equally, what part of the fruits will each friend get?

Teacher: Yes, one-third.

Teacher: Now read the story with your partner. Take your time.

Teacher: What happened in the story when the friends shared their food?

Teacher: Correct, they each got one-third and altogether they ate the whole amount.

Teacher: Why do you think using fractions and decimals was important in this story?

Teacher: Yes, they helped in fair sharing.

Teacher: Can you think of other situations where we use decimals in daily life?

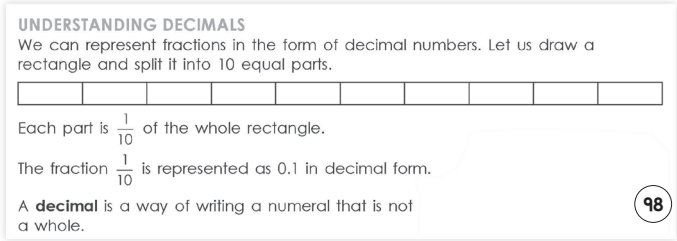
Teacher: Yes, when we split fruits, divide water or distribute time during games.

Understanding Decimals

Teacher: Let us begin by thinking about something we all enjoy. Have you ever shared a large watermelon with friends?

MUST DO

10 MIN.



Teacher: Suppose it is divided into 10 equal slices. If you eat 1 slice, what part of the watermelon have you eaten?

Teacher: Yes, 1 out of 10 and we write 1 out of 10 as the fraction $\frac{1}{10}$.

Teacher: Now, in decimals, this same fraction number is written as 0.1. Can you see how the decimal helps us? We can write the same number in easier and shorter way.

Teacher: Correct, 0.1 means one-tenth.

Teacher: Let us try another one. If I eat 3 slices out of 10, what fraction is that?

Teacher: Yes, $\frac{3}{10}$. decimal? Now, write this number in decimal form.

Teacher: It is 0.3. Very well understood.

Teacher: Now look at your Main Coursebook, page 98. The rectangular strip is divided into 10 equal parts. If we shade 7 parts, what will the fraction be?

Teacher: $\frac{7}{10}$. Yes, now write it in decimal form.

Teacher: It will be 0.7. That is right.

Teacher: What do you notice about all these decimals

Teacher: Yes, they all have a 0 before the decimal point, which shows that the number is less than 1. The digit after the decimal tells us how many tenths we are talking about.

Teacher: Let us connect this to something we measure. If you fill your water bottle up to 0.6 litres, what does that mean?

Teacher: Yes, it means 6 tenths of a litre is filled. That is not a full litre but more than half.

Teacher: Why do you think decimals are useful in our everyday life?

Teacher: You are right. They help us in measuring water, weighing fruits, reading temperature and even when we go shopping.

Teacher: So, remember, decimals are another way of writing fractions. It helps us write the value in a simpler form when numbers are not in whole, especially when using tools like scales for measuring length, weight, height of objects or things.

You may show the **Explainer Video** given on the digital platform.

Laughing better

Teacher: Let us take a short fun break. Look at the 'Laughing better' section on page 98.

MUST DO
5 MIN.

Teacher: Hopper asks, 'Elphy, what is special about decimal numbers'

Teacher: Elphy replies, 'They are so improper'.

Teacher: That is a clever joke.

Differentiated Activities

110 km/hr

Imagine you are a shopkeeper selling juice in small cups.

Each cup holds a fraction of a litre. Convert these into decimals to show customers exactly how much juice they are getting.

- Orange Juice: $\frac{3}{10}$ litre
- Apple Juice: $\frac{7}{100}$ litre
- Mixed Fruit Juice: $\frac{25}{100}$ litre

Write the decimal equivalents on mini menu cards.

80 km/hr

Write the decimal forms of these fractions: $\frac{1}{10}$, $\frac{4}{10}$

40 km/hr

With your partner, draw one strip and divide it into 10 equal parts. Shade 6 parts.

Now, discuss with your partner: What fraction have you shaded and what will be its decimal from? After discussing, write the decimal number below the shaded strip.

Home Task

Look around your home and find three items with prices written in decimal form. Write the name of each item and its price as a decimal and a fraction.

Period 3

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick revision. Yesterday we worked with shapes divided into ten parts.

SHOULD DO
5 MIN.

Teacher: If 4 parts out of 10 are shaded then what will be its fraction form?

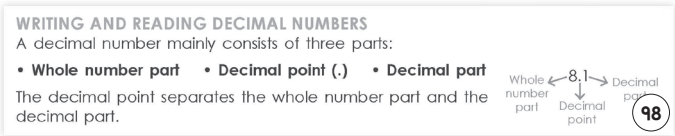
Teacher: Yes, $\frac{4}{10}$. Now, how do we write that in decimal form?

Teacher: It is 0.4. Well remembered. Today, we will learn how to read and write decimal numbers clearly using place value.

Writing and Reading Decimal Numbers

Teacher: Please open your Main Coursebook to page 98, below Laughing better. Let us learn how to write and read Decimal numbers.

MUST DO
20 MIN.


WRITING AND READING DECIMAL NUMBERS

A decimal number mainly consists of three parts:

• **Whole number part** • **Decimal point (.)** • **Decimal part**

The decimal point separates the whole number part and the decimal part.

8.1 — Whole number part — Decimal point — Decimal part

98

Teacher: A decimal number has three main parts. Can anyone know what are they ?

Teacher: Yes, a whole number part, a decimal point and a decimal part.

Teacher: Look at example given on page 98. What is the whole number part in decimal number 8.1

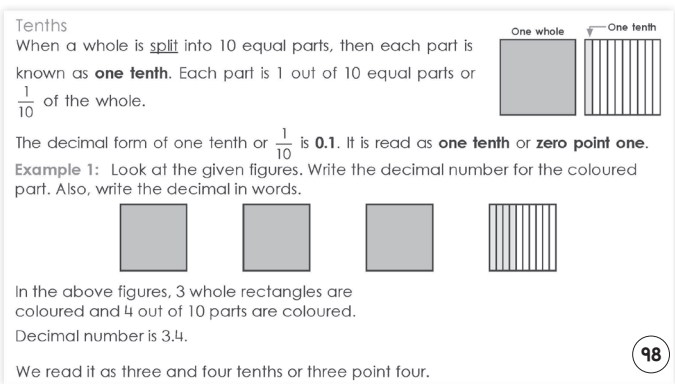
Teacher: Yes, 8. And What is the decimal part?

Teacher: That is 1.

Teacher: The decimal point separates these two parts. So, 8.1 means eight and one tenth or eight point one.

Teacher: Now let us try reading 3.4 together.

Tenths


Tenths

When a whole is split into 10 equal parts, then each part is known as **one tenth**. Each part is 1 out of 10 equal parts or $\frac{1}{10}$ of the whole.

One whole — One tenth

The decimal form of one tenth or $\frac{1}{10}$ is **0.1**. It is read as **one tenth** or **zero point one**.

Example 1: Look at the given figures. Write the decimal number for the coloured part. Also, write the decimal in words.

In the above figures, 3 whole rectangles are coloured and 4 out of 10 parts are coloured.

Decimal number is 3.4.

We read it as three and four tenths or three point four.

98

When we split something into 10 equal parts, what is each part called?

Teacher: Yes, one tenth. How do we write one tenth as a fraction

Teacher: It is $\frac{1}{10}$, after adding decimals it will be 0.1.

Teacher: Now look at the three full rectangles and the striped one. How many whole parts are coloured?

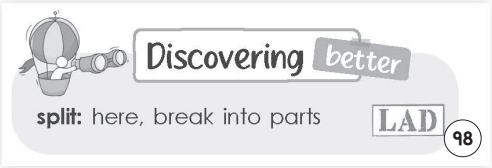
Teacher: Three. And how many parts out of ten in the striped one?

Teacher: Four. So, what is the total in decimal form?

Teacher: Yes, 3.4

Teacher: We read it as three point four or three and four tenths.

Discovering better



Teacher: Look at the 'Discovering better' section. It tells us that 'split' means breaking into parts.

Teacher: So, when we split a whole into 10 parts, each part is called one tenth.

Teacher: What is one tenth as a fraction?

Teacher: Yes, $\frac{1}{10}$.

Teacher: And what is it called in decimal form?

Teacher: Yes, 0.1

Teacher: Work with your partner. Each of you will draw a shape divided into 10 equal parts.

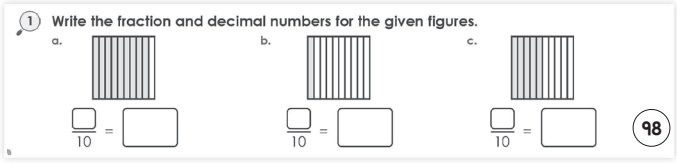
COULD DO
10 MIN.

Teacher: Shade any number of parts in your shape. Then, ask your partner to write the fraction and its decimal.

Teacher: Switch roles and try again with a different number of parts shaded.

You may show the **I Explain** given on the digital platform.

MUST DO
5 MIN.



Teacher: Now let us solve Exercise 1 on page 98.

Teacher: Look at figure (a). Count the shaded parts in decimal grid. How many parts out of ten are shared?

Teacher: Yes, that is the numerator of the fraction. Now write the fraction and its decimal value for the shaded parts.

Teacher: Now, try figure (b) and (c) the same way. Write both the fraction and decimal carefully.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Create a decimal number using 2 whole parts and any number of tenths. Draw a visual model and label the whole number and decimal parts.

80 km/hr

Write three decimal numbers using tenths: one with 2 tenths, one with 5 tenths and one with 9 tenths. Read them aloud with your partner.

40 km/hr

With your partner, colour 3 full rectangles and 6 parts out of 10 in a fourth one. Discuss and write the total as a decimal number.

Home Task

Find any three numbers at home that have a decimal point on packages or labels (such as weights or prices). Write the number and explain which part is the whole number and which part is decimal part.

Period 4

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick revision. Yesterday we worked with shapes divided into ten parts.

SHOULD DO
5 MIN.

Teacher: If 4 parts out of 10 are shaded, what is it in fraction?

Teacher: Yes, $\frac{4}{10}$. And how do we write that in decimal form?

Teacher: It is 0.4. Well remembered.

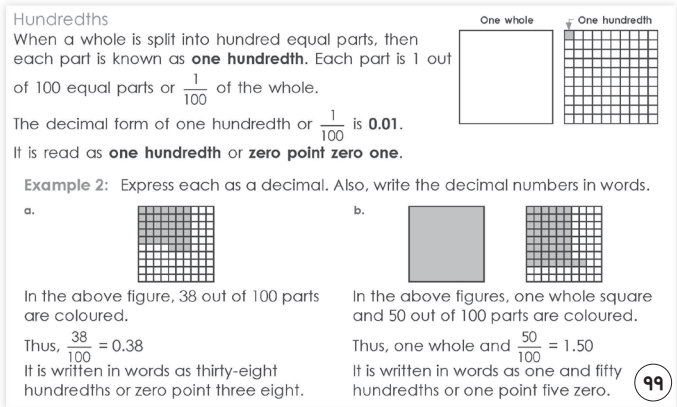
Teacher: Today, we will learn how to read and write decimal numbers clearly using place value.

Hundredths

Teacher: Please open your Main Coursebook to page 99.

Teacher: When a shape is split into 100 equal parts, each part is called one hundredth.

MUST DO
10 MIN.



Teacher: If we shade 1 part out of 100, what is it in fraction?

Teacher: Yes, $\frac{1}{100}$. And what is the decimal form?

Teacher: It is 0.01.

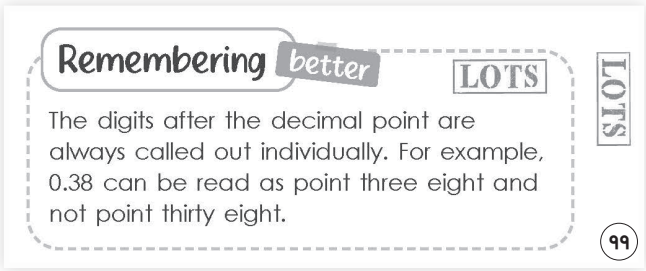
Teacher: Now, look at the figure where 38 parts are shaded. How do we write that as a decimal?

Teacher: Yes, $\frac{38}{100}$ and its decimal form is 0.38.

Remembering better

MUST DO 5 MIN.

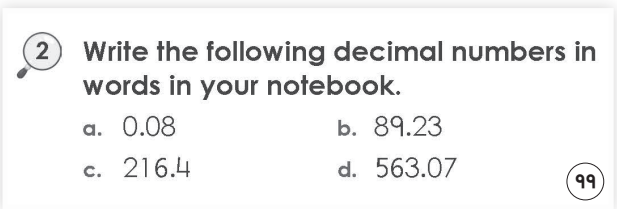
Teacher: Let us look at the 'Remembering better' section.



Teacher: It tells us how to read decimals correctly. We say each digit after the decimal point one by one.

MUST DO 5 MIN.

Teacher: For example, 0.38 is read as zero point three eight, not thirty-eight.



Teacher: Now let us try Exercise 2.

Teacher: You will write the decimal numbers given in words. For example, 0.08 will be written as zero point zero eight.

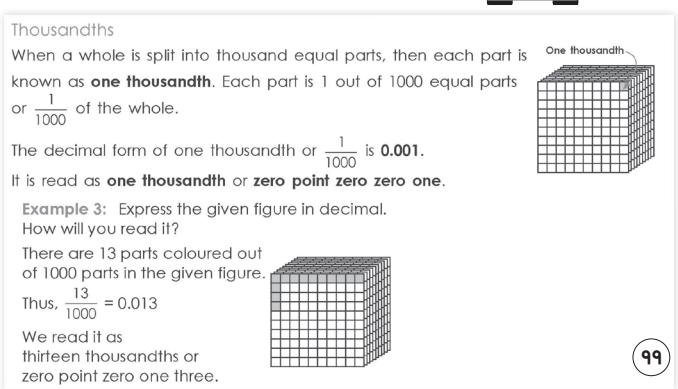
Teacher: Try all the four parts one by one. Raise your hand if you are unsure.

Thousandths

Teacher: Now let us look at the next concept – thousandths.

Teacher: When a whole is split into 1000 equal parts, what do we call each part?

MUST DO 5 MIN.



Teacher: Yes, one thousandth.

Teacher: Look at the example with 13 shaded parts out of 1000. How do we write this as a decimal?

Teacher: Correct, it is 0.013. We read it as zero point zero one three.

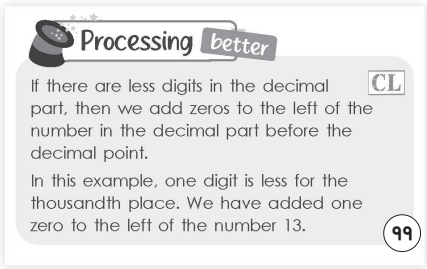
(Discuss in detail with the students.)

Processing better

MUST DO 5 MIN.

Teacher: Turn to the 'Processing better' section.

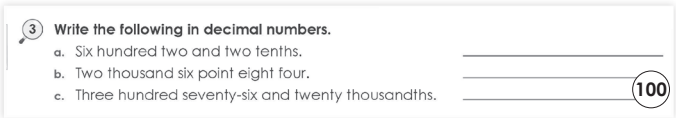
Teacher: It explains what we do when digits are missing in the decimal part.



Teacher: For example, 13 thousandths has only two digits. So, we add a zero in front to make it 0.013.

MUST DO 5 MIN.

Teacher: That way, the place value is correct



Teacher: Now try Exercise 3.

Teacher: Read each number given in words and write it in decimal form.

Teacher: Take your time and check the place values. I will come around if you need help.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Draw a hundredths grid and shade any number of parts. Write the fraction and decimal, then read it aloud with proper place value.

80 km/hr

Write decimal forms for these fractions: $\frac{24}{100}$, $\frac{9}{100}$, $\frac{100}{100}$. Say them with a partner.

40 km/hr

With your partner, colour 10 parts out of 100. Discuss and write what the fraction and decimal would be.

Home Task

Draw a square and divide it into 100 equal parts. Shade any number of parts. Write the fraction and its decimal form below the drawing.

Period 5

SHOULD DO
5 MIN.

Teacher: Good morning students. How are you feeling today?

Teacher: Let us start with a fun decimal detective round. I will describe a decimal and you have to guess the number. Are you ready?

Teacher: I am thinking of a decimal number. It has 3 in the tenths place and 8 in the hundredths place. What is that number?

Teacher: Yes, it is 0.38.

Teacher: Now try this one. One whole and fifty hundredths. What is the decimal form of this number?

Teacher: It is 1.50.

Teacher: Here is a tricky one. The number has 1 in the thousandths place and 0 in tenths and hundredths. What is it?

Teacher: It is 0.001.

Teacher: Last one. What is the decimal form of 45 out of 100?

Teacher: Yes, it is 0.45. Excellent.

Teacher: Very good. You remembered the concepts well. Let us now move to today's topic.

Decimal Numbers in the Place Value Chart

MUST DO
15 MIN.

Teacher: Turn to page 100 in your Main Coursebook that shows the place value chart.

DECIMAL NUMBERS IN THE PLACE VALUE CHART

We already know that the place value of a digit becomes 10 times as it moves from right to left by one place in a place value chart. Similarly, the place value of a digit gets divided by 10 as it moves from left to right by one place.

Let us see what happens when a digit moves one place to the right of the ones place after the decimal point. The place value of a digit becomes

$1 \div 10 = 1 \times \frac{1}{10} = \frac{1}{10}$ or **one tenth.**

Similarly, when the digit moves one more place to the right, its place value becomes

$\frac{1}{10} \div 10 = \frac{1}{10} \times \frac{1}{10} = \frac{1}{100}$ or **one hundredth.**

Also, when the digit moves one more place to the right, its place value becomes

$\frac{1}{100} \div 10 = \frac{1}{100} \times \frac{1}{10} = \frac{1}{1000}$ or **one thousandth.**

This can be represented in the place value chart, as shown below:

DECIMAL PLACE VALUE CHART

Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
1000	100	10	0	(.)	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Whole number part					Decimal number part		

Example 4: Place 36.98, 10.005, 404.080 in the place value chart.

Hundreds 100	Tens 10	Ones 0	Decimal Point	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$	Decimal Number
	3	6	.	9	8		36.98
	1	0	.	0	0	5	10.005
4	0	4	.	0	8	0	404.080

100

Teacher: We already know place value increases ten times when we move to the left. But what happens when we move to the right of the decimal point?

Teacher: Yes, the value becomes one-tenth, then one-hundredth, then one-thousandth.

Teacher: Look at the example 36.98. Can you tell me which digit is in the tenths place?

Teacher: It is 9. What about the hundredths place?

Teacher: It is 8. Very good.

Teacher: Let us try placing a number like 10.005 in the chart. Which digit goes in the thousandths place?

Teacher: Yes, it is 5. And the hundredths and tenths places are 0.

Teacher: Now open the chart and follow along as we place the numbers. This will help us understand how the digits are positioned on both sides of the decimal point.

(Use **CRM signs** to settle the class.)

MUST DO
5 MIN.

4 **Represent the decimals in the place value chart in your notebook.**

a. 2.56 b. 4.003 c. 19.4 d. 30.528 e. 206.09 f. 522.7

100

Teacher: Let us now solve Exercise 4.

Teacher: Read each number carefully and place the digits in the correct columns of the place value chart.

Teacher: Take your time and check with your partner if needed. Solve the first 3 questions here and the rest of the questions at your home.

Understanding better

MUST DO
5 MIN.

Teacher: Now look at the 'Understanding better' section. (Guide students to solve the questions.)

Understanding better

Answer the following questions.

1. 2.65 is read as two point sixty-five. Say yes or no.
2. What is the fraction of one thousandth?
3. What is the decimal number of one tenth?

ICL

101

Teacher: Now try Exercise 5. You will build decimal numbers by placing digits as told in the question.

MUST DO
10 MIN.

5 **Build the decimal numbers in your notebook.**

a. 4 in the tenths place, 3 in the ones place, 0 in the tens place.

b. 8 in the tenths place, 5 in the hundredths place, 6 in the ones place.

c. 2 in the tenths place, 9 in the thousandths place, 8 in the tens place, 1 in the ones place.

101

Teacher: Start with question (a). It says 4 in the tenths, 3 in ones and 0 in tens. What is the number?

Teacher: Yes, it is 03.4 or just 3.4.

Teacher: Continue with questions (b) and (c). I will walk around and check your work.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Create any 3-digit decimal number with a digit in the thousandths place. Represent it using a place value chart and label all columns.

80 km/hr

Place the number 52.306 in a place value chart. Read it aloud by naming the place value of each digit.

40 km/hr

With your partner, take the number 4.2 and show it on a place value chart. Discuss which digit is in the ones and tenths places?

Home Task

Solve question (d) to (f) of Exercise 4 given on page 100 in the Main Coursebook.

Period 6

Teacher: Good morning students. How are you today

Teacher: Let us begin with a quick game called 'Place Value Clues'. I will describe a decimal number using clues and you will guess the number.

SHOULD DO — 5 MIN.

Teacher: The number has 4 in the tenths place, 0 in the ones place and 3 in the hundredths place. What is that number?

Teacher: Yes, 0.43.

Teacher: Another one. The number has 1 in the hundreds place, 0 in the tens and 6 in the tenths. What is it?

Teacher: It is 100.6.

Teacher: Very good. You all remember the place values well. Let us now see how we can convert fractions into decimals.

Converting Fractions into Decimals

Teacher: Open your Main Coursebook to the section 'Converting Fractions into Decimals', given on page 101.

MUST DO — 15 MIN.

CONVERTING FRACTIONS INTO DECIMALS

Fractions with denominators as multiples of 10 (10, 100, 1000 ...) are called **decimal fractions**.

To convert fractions into decimals, follow the given steps:

STEP 1: Write the numerator.

STEP 2: Look at the denominator. If it has zeros (110, 100, 1000...), count the number of zeros. Move the decimal point in the numerator to the left. The numb of places to move depends on how many zeros are in the denominator.

ICL

101

Let us understand this with the help of a few examples.

STEP 1	STEP 2		
Numerators	$\frac{1}{10}$ Places after decimal: 1	$\frac{1}{100}$ Places after decimal: 2	$\frac{1}{1000}$ Places after decimal: 3
7	$\frac{7}{10} = 0.7$	$\frac{7}{100} = 0.07$	$\frac{7}{1000} = 0.007$
29	$\frac{29}{10} = 2.9$	$\frac{29}{100} = 0.29$	$\frac{29}{1000} = 0.029$
148	$\frac{148}{10} = 14.8$	$\frac{148}{100} = 1.48$	$\frac{148}{1000} = 0.148$

101

Teacher: Look at the heading. We are going to convert fractions into decimal numbers.

(Discuss the steps in detail.)

Teacher: If the denominator has 1 zero, like 10, we move the decimal point 1 place to the left.

Teacher: If it has 2 zeros, like 100, we move it 2 places. For 1000, we move it 3 places.

Teacher: Let us try an example. What is 7 divided by 10

Teacher: Yes, it is 0.7.

Teacher: What about 29 divided by 100?

Teacher: That is 0.29.

Teacher: Now look at the example of 148 divided by 1000. What is the decimal?

Teacher: Yes, it is 0.148.

Teacher: So, we always count how many zeros are in the denominator to know where to place the decimal.

COULD DO — 10 MIN.

Teacher: Now work with your partner. One of you will choose a fraction like $\frac{16}{100}$ or $\frac{4}{10}$ and say it aloud.

Teacher: The other person will convert it into a decimal and write it.

Teacher: Take turns and do three each. Check each other's answers after every turn.

MUST DO — 10 MIN.

6 Convert the following fractions into decimals in your notebook.

a. $\frac{4}{10}$ b. $\frac{2}{100}$ c. $\frac{57}{100}$ d. $\frac{1}{1000}$ e. $\frac{407}{1000}$

101

Teacher: Let us now solve Exercise 6.

Teacher: Convert each of these fractions into decimals.

Teacher: Remember the steps. Count the zeros in the denominator and shift the decimal point in the numerator to the left.

Teacher: Solve all five parts. I will check your work as you go.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Take the fractions $\frac{207}{1000}$, $\frac{89}{100}$ and $\frac{6}{10}$.

Convert each to a decimal, explain how many places you moved the decimal point and why.

Then, read each decimal aloud using place value.

80 km/hr

Convert these fractions into decimals: $\frac{45}{100}$, $\frac{9}{10}$, $\frac{300}{1000}$. Write each decimal clearly and read them aloud with your partner.

40 km/hr

With your partner, look at the fraction $\frac{5}{10}$. Use a strip divided into 10 equal parts and shade 5 parts. Now discuss what the decimal would be and say it aloud together.

Home Task

Find the weight of any two packaged items at home (such as a soap bar or a snack packet).

Note down the weight written in decimal form (for example, 0.5 kg). Then, write each as a fraction with a denominator of 10, 100 or 1000.

Period 7

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick warm-up from the last class. I will give you a decimal and you will tell me what fraction it becomes.

SHOULD DO — 5 MIN.

Teacher: What is the fraction form of 0.1?

Teacher: Yes, it is $\frac{1}{10}$.

Teacher: And what about 0.07?

Teacher: It is $\frac{7}{100}$. Well done.

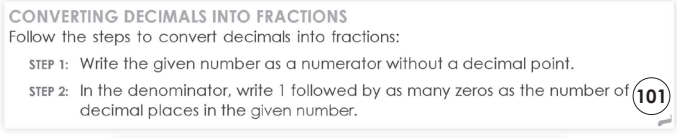
Teacher: Now try this. What is 0.125 as a fraction?

Teacher: Yes, $\frac{125}{1000}$. Let us now learn how to convert any decimal into a fraction.

Converting Decimals into Fractions

Teacher: Please open your Main Coursebook to the section 'Converting Decimals into Fractions'.

MUST DO — 10 MIN.



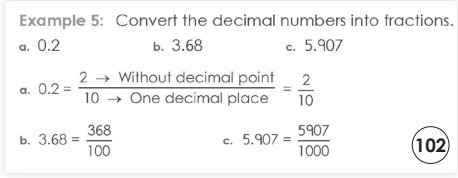
CONVERTING DECIMALS INTO FRACTIONS

Follow the steps to convert decimals into fractions:

STEP 1: Write the given number as a numerator without a decimal point.

STEP 2: In the denominator, write 1 followed by as many zeros as the number of decimal places in the given number.

101



Example 5: Convert the decimal numbers into fractions.

a. 0.2 b. 3.68 c. 5.907

a. $0.2 = \frac{2 \rightarrow \text{Without decimal point}}{10 \rightarrow \text{One decimal place}} = \frac{2}{10}$

b. $3.68 = \frac{368}{100}$ c. $5.907 = \frac{5907}{1000}$

102

(Discuss the steps in detail.)

Teacher: Let us try an example. Let us covert 0.2 in fraction.

Teacher: First, remove the decimal. It becomes 2.

Teacher: There are 1 digits after the decimal, so the denominator is 10.

Teacher: Therefore, the fraction is $\frac{2}{10}$.

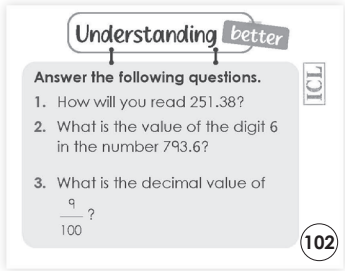
Teacher: Now you try other decimal numbers.

Understanding better

Teacher: Now look at the 'Understanding better' section.

MUST DO — 5 MIN.

Teacher: First question, How will you read 251.38?



Understanding better

Answer the following questions.

1. How will you read 251.38?
2. What is the value of the digit 6 in the number 793.6?
3. What is the decimal value of $\frac{9}{100}$?

ICL

102

Teacher: Yes, two hundred fifty-one point three eight. (Guide students to complete the questions.)

Teacher: Now let us do a fun hands-on activity using Decimal Cards.

COULD DO — 10 MIN.

Teacher: I will give each pair a set of cards. Some cards have decimal numbers like 0.3, 5.09 or 2.1 and others have matching fractions like $\frac{3}{10}$, $\frac{509}{100}$ or $\frac{21}{10}$.

Teacher: Your task is to match each decimal card with its correct fraction card.

Teacher: After you finish matching, read the decimal and the fraction aloud to your partner and explain how they are connected.

Teacher: You may use your notebooks to double-check your matches if needed.

MUST DO — 5 MIN.

7 Convert the following decimals into fractions in your notebook.

a. 2.9 b. 7.09 c. 8.005

d. 14.6 e. 29.49 f. 54.17

102

Teacher: Now open your Main Coursebook to Exercise 7.

Teacher: Look at question (a) 2.9. How many digits are after the decimal point

Teacher: One digit. So, we write 29 as the numerator and 10 as the denominator.

Teacher: That gives us $\frac{29}{10}$.

Teacher: Now try the rest on your own.

Teacher: Remember to count the number of decimal places and write 1 followed by that many zeros in the denominator.

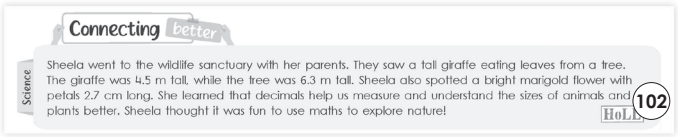
You may show the **Slideshow** given on the digital platform.

Connecting better

Teacher: Now look at the 'Connecting better' section.

Teacher: It tells us how Sheela saw measurements in the real world during a visit to the wildlife sanctuary.

SHOULD DO
5 MIN.


Connecting better
Science
Sheela went to the wildlife sanctuary with her parents. They saw a tall giraffe eating leaves from a tree. The giraffe was 4.5 m tall, while the tree was 6.3 m tall. Sheela also spotted a bright marigold flower with petals 2.7 cm long. She learned that decimals help us measure and understand the sizes of animals and plants better. Sheela thought it was fun to use maths to explore nature!
HoLE
102

Teacher: How tall was the giraffe?

Teacher: Yes, 4.5 m. What is the length of tree?

Teacher: 6.3 m.

Teacher: This shows how decimals are used in science to measure heights and lengths of animals and plants.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Design your own 'Decimal Story Card'. Think of a real-life situation where a decimal is used, like measuring rainfall or temperature (e.g., 6.5 cm of rain). Write the decimal, convert it into a fraction and draw a quick sketch to represent the situation.

80 km/hr

Create a mini menu card showing prices of three food items (e.g., ₹12.5, ₹9.75, ₹15.2). Write each price as a fraction. Use the method of removing the decimal and placing the correct denominator.

40 km/hr

Write the decimals 0.1, 0.2 and 0.3 in your notebook. Next to each, write the matching fraction. Read each pair aloud with your partner and explain what the numbers mean in your own words.

Home Task

Look at a thermometer or weight scale at home. Write down one decimal number you find.

Convert it into a fraction and write one sentence explaining how you did it.

Period 8

Teacher: Good morning students. How are you today

Teacher: Let us quickly play a 'Decimal Mix-up' game. I will say a number in words and you will give me its decimal.

SHOULD DO
5 MIN.

Teacher: Fifty-two and three tenths

Teacher: Yes, it is 52.3

Teacher: Eight hundredths

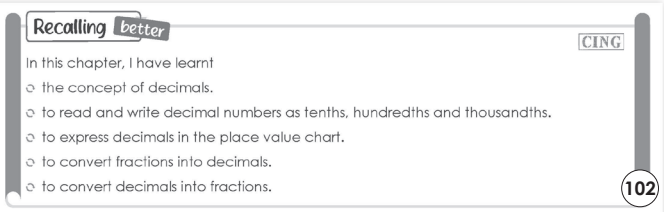
Teacher: Yes, it is 0.08.

Teacher: Let us continue reviewing what we have learnt so far.

Recalling better

Teacher: Everyone, open page 102 and look at the 'Recalling better' section. Let us revise.

MUST DO
15 MIN.


Recalling better
CING
In this chapter, I have learnt
- the concept of decimals.
- to read and write decimal numbers as tenths, hundredths and thousandths.
- to express decimals in the place value chart.
- to convert fractions into decimals.
- to convert decimals into fractions.

102

Teacher: What is a decimal?

Teacher: It shows parts of a whole using a point, like 0.3 for three tenths.

Teacher: Where do we see decimals?

Teacher: In prices, weight and length – like ₹15.25 or 1.2 kg.

Teacher: What is the decimal of $\frac{3}{10}$?

Teacher: It is 0.3.

Teacher: How do we change 0.75 into a fraction?

Teacher: Remove the point and divide by 100, it is $\frac{75}{100}$.

Teacher: What is the second digit after the decimal point called?

Teacher: That is the hundredths place.

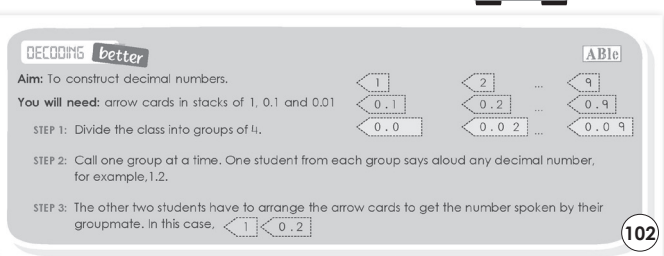
Teacher: Great, you remembered well. Let us now move to the next task

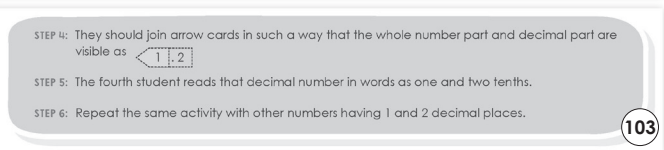
You may show the **Mental Maths** given on the digital platform.

Decoding better

Teacher: Now let us look at the activity under the 'Decoding better' section.

MUST DO
10 MIN.


DECODING better
ABIe
Aim: To construct decimal numbers.
You will need: arrow cards in stacks of 1, 0.1 and 0.01
STEP 1: Divide the class into groups of 4.
STEP 2: Call one group at a time. One student from each group says aloud any decimal number, for example,1.2.
STEP 3: The other two students have to arrange the arrow cards to get the number spoken by their groupmate. In this case, 1 0.2
102

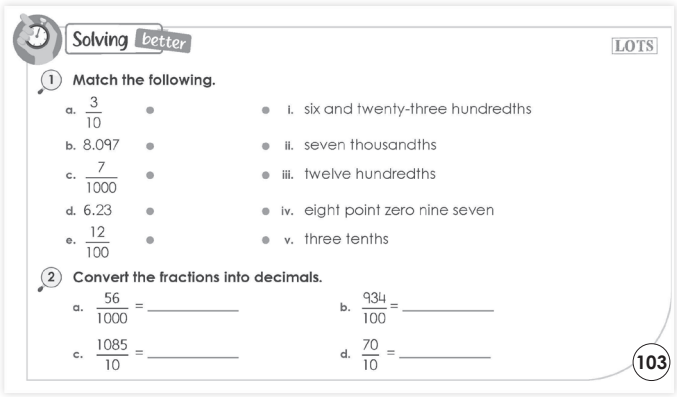

STEP 4: They should join arrow cards in such a way that the whole number part and decimal part are visible as 1.2
STEP 5: The fourth student reads that decimal number in words as one and two tenths.
STEP 6: Repeat the same activity with other numbers having 1 and 2 decimal places.
103

(Guide the students to complete the activity.)

Solving better

Teacher: Now look at question 1 from the 'Solving better' section. It is a matching activity.

MUST DO
5 MIN.



Solving better LOTS

1. Match the following.

a. $\frac{3}{10}$		i. six and twenty-three hundredths
b. 8.097		ii. seven thousandths
c. $\frac{7}{1000}$		iii. twelve hundredths
d. 6.23		iv. eight point zero nine seven
e. $\frac{12}{100}$		v. three tenths

2. Convert the fractions into decimals.

a. $\frac{56}{1000}$ = _____ b. $\frac{934}{100}$ = _____

c. $\frac{1085}{10}$ = _____ d. $\frac{70}{10}$ = _____

103

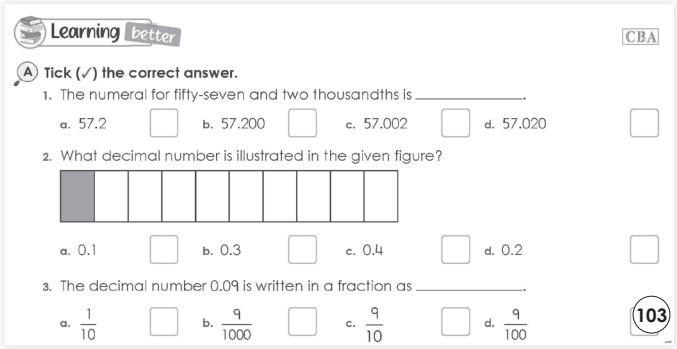
Teacher: Match the decimal number with the correct word form.

Teacher: Try to do it without help first, then we will discuss answers together.

Learning better

Teacher: Now, turn to Exercise A under the 'Learning better' section.

MUST DO
5 MIN.



Learning better CBA

A. Tick (✓) the correct answer.

1. The numeral for fifty-seven and two thousandths is _____.

a. 57.2 ☐ b. 57.200 ☐ c. 57.002 ☐ d. 57.020 ☐

2. What decimal number is illustrated in the given figure?

a. 0.1 ☐ b. 0.3 ☐ c. 0.4 ☐ d. 0.2 ☐

3. The decimal number 0.09 is written in a fraction as _____.

a. $\frac{1}{10}$ ☐ b. $\frac{9}{1000}$ ☐ c. $\frac{9}{10}$ ☐ d. $\frac{9}{100}$ ☐

103

4. The place value of 8 in 23.187 is _____.

a. 8 tenths ☐ b. 8 hundredths ☐ c. 8 thousandths ☐ d. 8 tens ☐

5. The decimal form of $\frac{9}{1000}$ is _____.

a. 0.9 ☐ b. 0.009 ☐ c. 0.090 ☐ d. 9000 ☐

104

Teacher: Let us solve these tick-the-correct-answer type questions.

Teacher: Read each option carefully before choosing. Take your time.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Create your own match-the-following set using five new decimals and their word forms. Exchange with a partner and solve each other's set.

80 km/hr

Write five decimal numbers in your notebook and write their word forms (for example, 0.8 – zero point eight). Then say them aloud with your partner.

40 m/hr

Draw 3 flowers. Write $\frac{3}{10}$, $\frac{12}{100}$ and $\frac{70}{10}$ on each flower. Convert and write their decimal forms on the pots. Colour the flowers brightly.

Home Task

Solve question 2 of the 'Solving better' section given on page 103 in the Main Coursebook.

Period 9

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick warm-up to recall our previous learning.

SHOULD DO
5 MIN.

Teacher: I will say a decimal number and you will tell me whether it is closer to 0, 1 or 10. Ready?

Teacher: 0.05, is it closer to 0 or 1?

Teacher: Correct, it is closer to 0.

Teacher: 3.6, closer to 1 or 10?

Teacher: Yes, it is closer to 1.

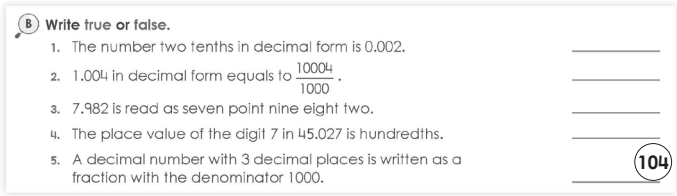
Teacher: 9.9, closer to 10?

Teacher: Right again. You are thinking quickly. Let us move to today's work.

You may show the **HOTS** given on the digital platform.

Teacher: Let us solve Exercise B. Read each statement and write True or False in your notebook.

MUST DO
5 MIN.



B. Write true or false.

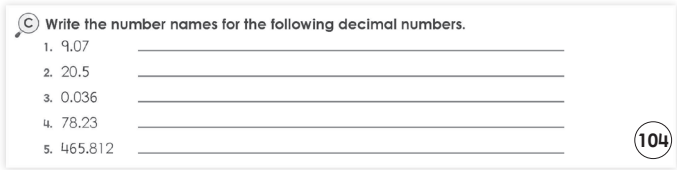
1. The number two tenths in decimal form is 0.002. _____
2. 1.004 in decimal form equals to $\frac{10004}{1000}$. _____
3. 7.982 is read as seven point nine eight two. _____
4. The place value of the digit 7 in 45.027 is hundredths. _____
5. A decimal number with 3 decimal places is written as a fraction with the denominator 1000. _____

104

Teacher: Think carefully about place value and how decimal numbers are written.

Teacher: We will discuss answers once everyone is done.

MUST DO
10 MIN.



C. Write the number names for the following decimal numbers.

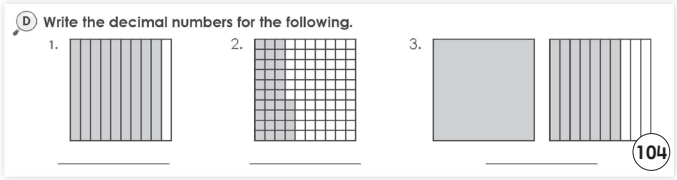
1. 9.07 _____
2. 20.5 _____
3. 0.036 _____
4. 78.23 _____
5. 465.812 _____

104

Teacher: Now we will do Exercise C. You have to write the number names for each decimal number.

Teacher: For example, 9.07 is read as nine and seven hundredths.

Teacher: Write neatly and say the number name aloud in your mind as you write.

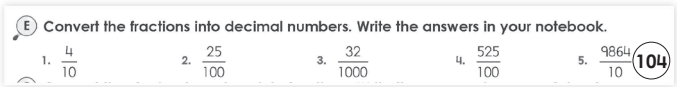


Teacher: Look at the shaded parts in each figure in Exercise D.

MUST DO
5 MIN.

Teacher: Based on the number of shaded parts, write the decimal number it represents.

Teacher: Use your understanding of tenths and hundredths to answer correctly.

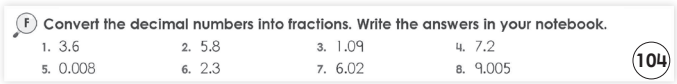


Teacher: Let us convert the given fractions into decimal numbers in Exercise E.

MUST DO
10 MIN.

Teacher: Remember how we move the decimal point based on the number of zeroes in the denominator.

Teacher: Work carefully and use your previous examples for help.



Teacher: Now, solve questions 1 to 4 of Exercise F.

MUST DO
5 MIN.

Teacher: Convert each decimal number into a fraction.

Teacher: What is the number given?

Teacher: Yes, it is 3.6.

Teacher: Now, how many digits are there after the decimal point in 3.6?

Teacher: One digit. That means we are working with tenths.

Teacher: So, we multiply 3.6 by 10 to remove the decimal. What do we get?

Teacher: We get 36.

Teacher: Good. Now, what will the denominator be?

Teacher: Since we moved one place, it is 10. So, the fraction is 36 by 10.

(Guide the students to complete the questions in a similar manner.)

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Create a short decimal story problem for your partner. Example: I bought 3.6 kg of apples. Can you convert it into a fraction? Then swap your story and solve each other's.

80 km/hr

Circle the correct denominator for each decimal:
0.4 → 10 or 100?
0.08 → 100 or 1000?
0.005 → 100 or 1000?

40 km/hr

Draw a price tag of three imaginary items using decimals (e.g., ₹2.5, ₹3.75, ₹0.6). Then write their values in fraction form below the tags.

Home Task

Solve questions 5 to 8 of Exercise F given on page 104 in the Main Coursebook.

Bring the 'Little book' for completing the 'Revising better' activity.

Period 10

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick quiz to refresh your memory from our previous lesson.

SHOULD DO
5 MIN.

Teacher: What is the decimal form of 3 tenths?

Teacher: The correct answer is 0.3. Well tried, everyone.

Teacher: What is the fraction form of 0.25?

Teacher: It is 25 over 100 or $\frac{25}{100}$. Very good.

Teacher: Which place value comes immediately after tenths?

Teacher: It is hundredths. I am happy you remembered that.

Teacher: What is the value of digit 2 in 4.2?

Teacher: It is two tenths or 0.2. That is the correct value.

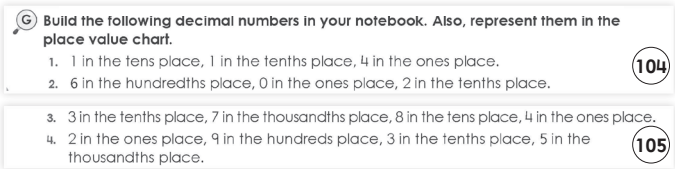
Teacher: Can 0.7 be written as a fraction?

Teacher: Yes, it can. It is 7 over 10 or $\frac{7}{10}$. Great work.

Teacher: Well done. You are thinking fast and giving sharp answers. Let us now begin our class activities.

(Use **CRM signs** to settle the class.)

MUST DO
10 MIN.



Teacher: Let us open to page 104 and look at Exercise G.

Teacher: Read each description carefully and write the decimal number.

Teacher: After that, draw the place value chart to represent it.

Teacher: You may work with a partner to help each other check your answers.

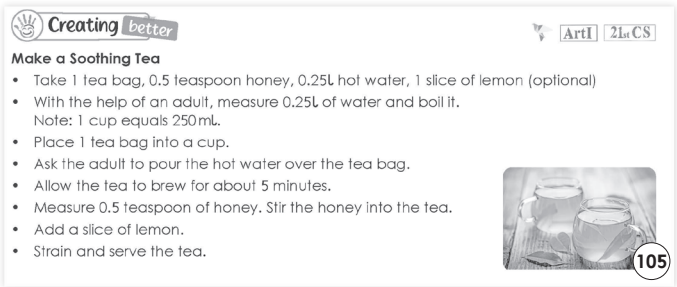
You may show the **Infographic** given on the digital platform.

Creating better

Teacher: Now look at the 'Creating better' section.

Teacher: You will prepare a simple soothing tea at home using measurements like 0.25 litres and 0.5 teaspoon.

MUST DO
5 MIN.


Creating better
ArtI 2Lit CS
Make a Soothing Tea
- Take 1 tea bag, 0.5 teaspoon honey, 0.25L hot water, 1 slice of lemon (optional)
- With the help of an adult, measure 0.25L of water and boil it.
  Note: 1 cup equals 250 mL.
- Place 1 tea bag into a cup.
- Ask the adult to pour the hot water over the tea bag.
- Allow the tea to brew for about 5 minutes.
- Measure 0.5 teaspoon of honey. Stir the honey into the tea.
- Add a slice of lemon.
- Strain and serve the tea.

105

Teacher: Can you see how decimals are useful even in the kitchen?

Teacher: Discuss the steps with your partner now.

Teacher: At home, try making it with the help of an adult and enjoy the drink.

Teacher: We will not do this in class but I want you to enjoy doing it at home.

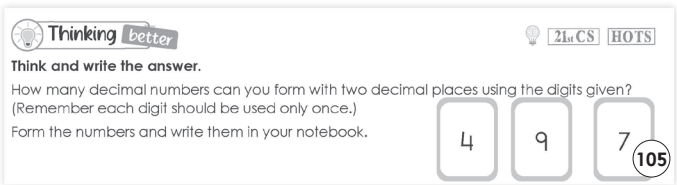
You may show the **Animated Activities** given on the digital platform.

Thinking better

Teacher: Now, look at the 'Thinking better' section.

Teacher: You are given the digits 4, 9 and 7.

MUST DO
5 MIN.


Thinking better
2Lit CS HOTS
Think and write the answer.
How many decimal numbers can you form with two decimal places using the digits given? (Remember each digit should be used only once.)
Form the numbers and write them in your notebook.
4 9 7
105

Teacher: How many decimal numbers can you make using only two decimal places?

Teacher: Work with a partner and write the combinations in your notebook.

Teacher: Remember not to repeat any digits.

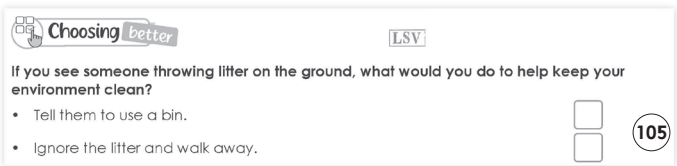
You may show the **Quiz** given on the digital platform.

Choosing better

Teacher: Let us now discuss the 'Choosing better' section.

Teacher: Suppose you are walking in the park and see someone throwing a chocolate wrapper on the ground. What will you do?

MUST DO
5 MIN.


Choosing better
LSV
If you see someone throwing litter on the ground, what would you do to help keep your environment clean?
- Tell them to use a bin.
- Ignore the litter and walk away.

105

Teacher: Will you tell them politely to use a bin or will you walk away?

Teacher: Why do you think choosing the bin is the better option?

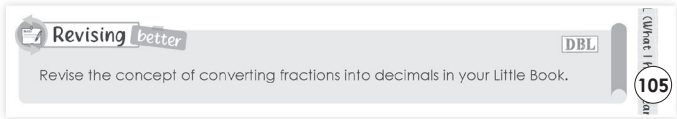
Teacher: Talk to your partner about how clean places make us feel and what you can do to help.

Teacher: After your discussion, tick the correct option.

Revising better

Teacher: Now open your Little Book, we will complete 'Revising better' activity in it.

MUST DO
10 MIN.


Revising better
DBL
Revise the concept of converting fractions into decimals in your Little Book.
105

Teacher: Let us revise the concept of converting fractions into decimals.

Teacher: Think about these questions and discuss them one by one.

1. What do we do with the decimal point when converting a fraction to a decimal?
2. What helps you decide the number of decimal places – numerator or denominator?
3. Can you give an example of how we convert 7 over 1000 into a decimal?

Teacher: Write your reflections and examples in your Little Book.

Teacher: If you have any doubts, ask your partner first, then check with me.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Create a maze where the correct path is formed by numbers greater than 0.5 but less than 1. Write those numbers along the path.

80 km/hr

Circle all numbers less than 0.5 from a given list: 0.9, 0.23, 0.5, 0.12, 0.76, 0.34.

40 km/hr

Write the place value of each digit in 5.09.

Home Task

Complete the 'Creating better' activity at home. After completing it, write 2–3 lines describing how you used decimals while making the tea.

Period 11

Teacher: Good morning, everyone. Let us begin today with a quick quiz to refresh what we have learnt. Are you ready?

SHOULD DO
5 MIN.

Teacher: What is the decimal form of one hundredth?

Teacher: The answer is 0.01. Well done, that was a great start.

Teacher: How do we read the decimal number 4.005?

Teacher: It is read as four point zero zero five. Very good thinking.

Teacher: Which place comes after hundredths in decimal numbers?

Teacher: That is the thousandths place. Excellent recall.

Teacher: What is the fraction form of 0.6?

Teacher: The answer is 6 over 10. That is correct. Keep it up.

Teacher: How many decimal places are there in 0.368?

Teacher: Three decimal places. Great work, you are all doing well. Let us solve the worksheets.

Worksheet 1

Theme 6: How Was Our Country Made?

9. Decimals

Worksheet 1

A. **Fill in the blanks.**

1. The _____ part of a decimal number is always less than one.
2. 0.01 or $\frac{1}{100}$ is read as _____.
3. The place value of 1 in 2.14 is _____.
4. Eighteen point five = _____
5. $\frac{2398}{100}$ = _____

B. Write **true** or **false**.

1. $\frac{1}{10}$ is an equivalent fraction of $\frac{10}{1000}$. _____
2. 0.05 is same as 0.50. _____
3. $\frac{1}{10}$ = 0.1 = one-tenth _____
4. The fractional form of 4.09 is $\frac{409}{1000}$. _____
5. A decimal consists of three parts. _____

C. **Fill in the blanks.**

In 8.569,

1. the digit 6 is in the _____ place.
2. the digit 5 has a value of _____.
3. the digit 9 is in the _____ place.
4. the digit 8 has a value of _____.
5. the digit 5 is in the _____ place.

37

Teacher: Everyone, please open Worksheet 1, given on page 37.

MUST DO
15 MIN.

Teacher: Let us start with Exercise A.

Teacher: Look at question 2 of Exercise A. What do you think is the correct way to read 0.01?

Teacher: Yes, we say 'zero point zero one'. Let us fill it in the blank.

Teacher: Now look at the last question. Can anyone tell me what 2398 by 100 is as a decimal?

Teacher: Yes, it is 23.98. Good work.

Teacher: Let us move to Exercise B. Read each statement carefully and write true or false.

Teacher: Remember, 1 by 10 is not equal to 10 by 1000. So, what will that be?

Teacher: Yes, it is false.

Teacher: Finally, let us complete Exercise C based on the place values in 8.569. Think and write the answers on your worksheet.

Worksheet 2

Worksheet 2

A. **Fill in the blanks.**

1. A numeral that is not a whole is called a _____.
2. The place value of 6 in 1.609 is _____.
3. 0.035 is read as _____.
4. $\frac{1}{10}$ is written as a decimal as _____.
5. The fraction form of 0.85 is _____.

B. Write **true** or **false**.

1. The number five thousandths in decimal form is 0.05. _____
2. A number with 2 decimal places is written as a fraction with denominator 100. _____
3. 9.07 is written in fraction as $\frac{7}{100}$. _____
4. The place value of 8 in 8.09 is tenths. _____
5. The decimal point separates the whole number part and the decimal part. _____

C. **Write the whole part and the decimal part for the following numbers.**

		Whole part	Decimal part
1.	63.2		
2.	94.05		
3.	349.2		
4.	45.08		
5.	500.089		

38

Teacher: Now open Worksheet 2. Let us begin with Exercise A.

MUST DO
15 MIN.

Teacher: Look question 4, can anyone tell me what the decimal form of 1 by 10 is?

Teacher: Yes, it is 0.1.

Teacher: Now look at the last question. What is the fraction form of 0.85?

Teacher: It is 85 by 100. Well done.

Teacher: Let us now move to Exercise B. Read the sentence. For example, '0.05 is five thousandths' – is this true or false?

Teacher: It is true. Keep going.

Teacher: Lastly, in Exercise C, separate the whole part and the decimal part from each number given in the table.

Teacher: For example, in 63.2, the whole part is 63 and the decimal part is 2. Great.

You may generate additional practice worksheets using the **Test Generator** given on digital platform.

Doubt Session

SHOULD DO 5 MIN.

Teacher: We have completed all worksheets and activities. Now let us take a few minutes to clear any doubts.

Teacher: Is anyone unsure about converting fractions to decimals or decimals to fractions?

Teacher: Do you need help with reading decimal numbers or identifying place values?

Teacher: If you have a question, raise your hand and I will explain it to the whole class.

Teacher: If your concepts are clear, give me a thumbs up so we know we can move on.

Teacher: Well done. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Write a short story that includes at least five decimal numbers (e.g., prices, distances, weights). Underline the decimals used.

80 km/hr

Write three sentences using decimal numbers related to time or money (e.g., 'The pencil costs ₹2.50')

40 km/hr

Arrange the following decimals from smallest to greatest: 0.3, 0.25, 0.5, 0.45.

Home Task

Create a mini menu card of three food items. Write their prices using decimals (e.g., ₹12.50, ₹9.75). Then write each price in words and as a fraction with a denominator of 10, 100 or 1000.

Note: for the Teacher: Arrange appropriate material for the activity mentioned in Book of Project Ideas, given on page 10 and 11.

Period 12

SHOULD DO 5 MIN.

Teacher: Good morning students. How are you feeling today?

Teacher: Let us warm up with a game called 'Decimal Detectives'. I will give you clues and you tell me the number.

Teacher: I am thinking of a number that has 7 in the tenths place and 2 in the ones place. What is the number?

Teacher: Yes, the number is 2.7. Very good.

Teacher: I am a decimal number between 3 and 4. My hundredths digit is 9. What could I be?

Teacher: Well done, it could be 3.09 or 3.9.

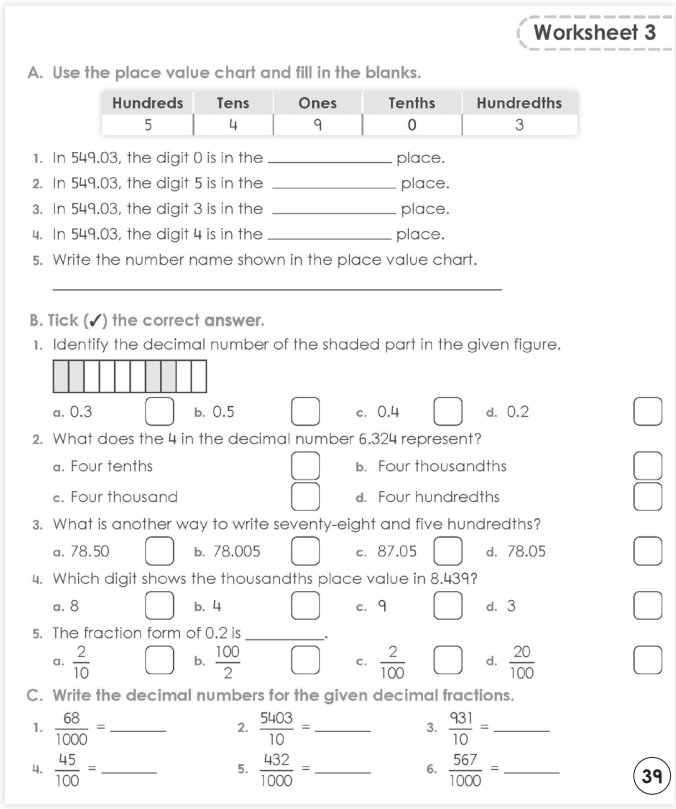
Teacher: Which is bigger: 0.4 or 0.04?

Teacher: Great work. 0.4 is bigger.

Teacher: I am read as 'eight and seven thousandths'. What is my number?

Teacher: Correct. It is 8.007. You are all doing great.

Worksheet 3



Worksheet 3

A. Use the place value chart and fill in the blanks.

Hundreds	Tens	Ones	Tenths	Hundredths
5	4	9	0	3

1. In 549.03, the digit 0 is in the _____ place.
2. In 549.03, the digit 5 is in the _____ place.
3. In 549.03, the digit 3 is in the _____ place.
4. In 549.03, the digit 4 is in the _____ place.
5. Write the number name shown in the place value chart.

_____

B. Tick (✓) the correct answer.

1. Identify the decimal number of the shaded part in the given figure.

a. 0.3 ☐ b. 0.5 ☐ c. 0.4 ☐ d. 0.2 ☐

2. What does the 4 in the decimal number 6.324 represent?

a. Four tenths ☐ b. Four thousandths ☐

c. Four thousand ☐ d. Four hundredths ☐

3. What is another way to write seventy-eight and five hundredths?

a. 78.50 ☐ b. 78.005 ☐ c. 87.05 ☐ d. 78.05 ☐

4. Which digit shows the thousandths place value in 8.439?

a. 8 ☐ b. 4 ☐ c. 9 ☐ d. 3 ☐

5. The fraction form of 0.2 is _____.

a. $\frac{2}{10}$ ☐ b. $\frac{100}{2}$ ☐ c. $\frac{2}{100}$ ☐ d. $\frac{20}{100}$ ☐

C. Write the decimal numbers for the given decimal fractions.

1. $\frac{68}{1000}$ = _____ 2. $\frac{5403}{10}$ = _____ 3. $\frac{931}{10}$ = _____

4. $\frac{45}{100}$ = _____ 5. $\frac{432}{1000}$ = _____ 6. $\frac{567}{1000}$ = _____

39

MUST DO 10 MIN.

Teacher: Now open Worksheet 3 and look at Exercise A, given on page 39.

Teacher: Let us read question 1 together. It says: 'In 549.03, the digit 0 is in the ____ place'.

Teacher: Can anyone tell me where 0 is? Yes, it is in the tenths place.

Teacher: Now continue filling in the blanks based on the place value chart.

Teacher: Let us move to Exercise B now.

Teacher: Read question 1 carefully: 'Identify the decimal number of the shaded part in the given figure'.

Teacher: Look at the shaded boxes. If 3 out of 10 boxes are shaded, the number is 0.3.

Teacher: Tick the correct option. Complete the rest on your own.

Teacher: Finally, look at Exercise C.

Teacher: Let us read the first question. 'Write the decimal number for 68 over 1000'.

Teacher: We move the decimal three places left, so it becomes 0.068.

Teacher: Now try solving the remaining questions.

Book of Project Ideas

Theme 6: How Was Our Country Made?

Chapter 9: Decimals

PRO 21st CS

- Arrange items with decimal prices (e.g., ₹12.50, ₹7.75) in the classroom.
- Give each student fake currency (e.g., ₹50.00).
- Provide a list of items with prices for students to buy (e.g., 2 notebooks at ₹12.50 each).
- Students buy items, calculate total costs, and manage their money.

10

- Complete a worksheet with decimal problems related to their purchases.
- Discuss answers and how they managed their budget.
- Talk about what they learned from the activity.

11

(Guide the students to complete the activity.)

COULD DO

10 MIN.

Book of Holistic Teaching

Theme 6: How Was Our Country Made?

Chapter 9: Decimals

HoLL MDA

A English

Underline the adjective in the sentence.

1. She bought a beautiful dress for ₹955.50.
2. He spent ₹188.50 on an interesting book.

B Science

The average height of the national animal of India ranges between 2.4 m to 2.9 m. What is the national animal of India? Where can it commonly be found?

C Social Studies

The distance from Delhi to the Thar Desert in Rajasthan is 736.4 km. What differences in physical features, like climate, vegetation and water resources can you observe between Delhi and the Thar Desert?

16

(Refer to the Book of Holistic Teaching, page 16 under the title 'Decimals.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.)

COULD DO

10 MIN.

Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column we will write what we have learnt in this chapter.

Teacher: Think about the topics, have we learnt and write them in the 'L' column of the chart.

SHOULD DO

5 MIN.

(Wait for students to fill in the chart.)

Teacher: Let us all give a huge round of applause to everyone for their hard work and creativity. Great work, everyone. See you in the next class. Have a wonderful day ahead.

Differentiated Activities

110 km/hr

I am a decimal number. My hundredths digit is 6, tenths is 2 and ones is 5. What number am I?

80 km/hr

Write the place value of each digit in 3.46.

40 km/hr

Colour the digit in the tenths place: 4.2, 6.03, 7.8

Home Task

Practise the questions discussed in this chapter.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	• actively participate in classroom tasks, demonstrate coordination and fine motor skills to represent decimal concepts accurately.
Socio-Emotional and Ethical Development	• express personal feelings positively through affirmations and respond ethically in given scenarios (e.g., choosing cleanliness).
Cognitive Development	• accurately convert decimals to fractions and fractions to decimals as shown in class exercises and worksheets.
Language and Literacy Development	• clearly read and write decimal numbers, correctly stating their place value orally and in writing
Aesthetic and Cultural Development	• create visual decimal representations (shapes, grids and drawings) to depict fractions and decimals accurately.
Positive Learning Habits	• engage actively in partner activities, complete tasks independently and consistently participate in discussions about decimals.

Starry Knights

How was the experience of teaching decimals to the young learners? Could you try out all the activities or added a new one? Please share your valuable thoughts.

Reward yourself with a STAR.

Lesson-10: Geometry

11 Periods (40 minutes each)

Learn Better (Main Coursebook), Stay Ahead (Workbook), Book of Holistic Teaching, Book of Project Ideas, CRM signs, Poster

Animation, Animated Activities, Dictionary, eBook, Explainer Video, HOTS, I Explain, Infographic, Quiz, Slideshow, Test Generator

Affirming better
I am happy to be an Indian.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand and identify basic 2D and 3D geometric shapes.
- to distinguish between different types of lines and figures.
- to accurately measure and draw line segments and geometric shapes.
- to relate geometric concepts to real-world applications.
- to develop spatial awareness through geometric exploration.
- to explore the properties of circles and their significance.
- to apply geometric principles in creative and critical tasks.

Methodology

Period 1

Teacher: Good morning students. Let us begin with a quick and fun shape-guessing game.

SHOULD DO
5 MIN.

Teacher: I will give you clues and you will try to guess the 2D shape I am describing. Are you ready?

Teacher: I have four equal sides and four corners. What am I?

Teacher: Yes, a square. Very good.

Teacher: I have three sides and three corners. What am I?

Teacher: Correct, a triangle. Well done.

Teacher: I am round and have no corners. What am I?

Teacher: Yes, a circle. Good work.

Teacher: Excellent work. These are the basic 2D shapes we already know. Now, let us move to the 'Affirming better' section.

Affirming better

Teacher: Today's affirmation is 'I am happy to be an Indian'. Why do you think we feel proud of our country?

MUST DO
5 MIN.

Teacher: Yes, because of our culture, diversity and heritage. Very good. Let us keep this positive thought with us while we explore geometry.

Teacher: We will begin a new chapter, Geometry. We are going to use a KWL chart to help us organise our thoughts and learning. I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format in your notebooks.

SHOULD DO
10 MIN.

K	W	L

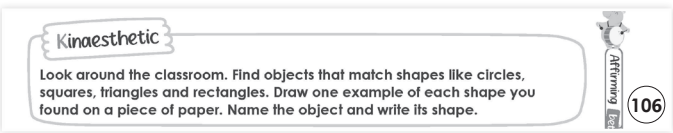
Teacher: Take a few minutes to think and write. If you have any questions, feel free to ask.

Teacher: You all did an amazing work in this activity. Let us move to Re-KAP activities. We will use Kinaesthetic, Auditory and Pictorial activities today to make our learning exciting. Let us start with the Kinaesthetic activity.

Kinaesthetic

Teacher: Everybody, please open page 106 in your Main Coursebook. Who will read and explain the activity?

MUST DO
10 MIN.



(Scaffold the students to complete the activity.)

Teacher: Excellent teamwork. This helped us understand shapes through real objects.

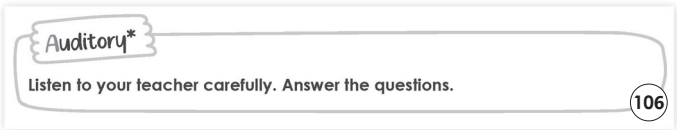
You may show the **eBook** given on the digital platform.

Auditory

MUST DO

5 MIN.

Teacher: Now, listen carefully as I read out a set of questions.



Teacher: I am a solid with a circle as a base, Another circle on top, in the same place. My sides are curved, not flat like a book, think of me when you see a can, just take a look. What shape am I?

Teacher: Great effort, everyone. Now, let us explore the pictorial activity.

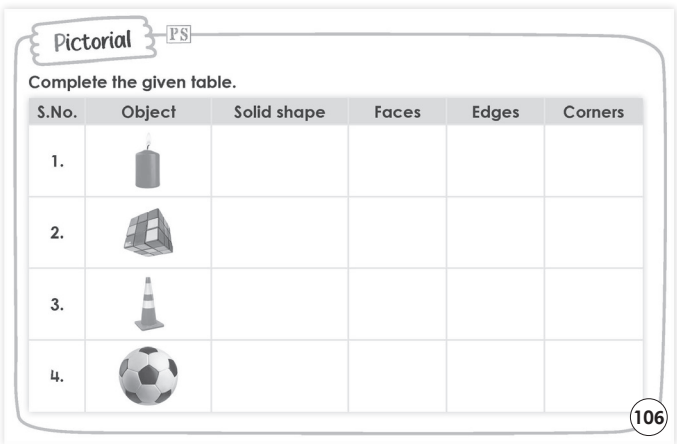
You may show the **Dictionary** given on the digital platform.

Pictorial

MUST DO

5 MIN.

Teacher: Let us now open the book to the picture where objects are shown.



Teacher: Complete the table with solid shape names, faces, edges and corners for each object.

Teacher: Well done, everyone. You all showed excellent observation and teamwork today. Let us have a huge round of applause for our hard work. See you in the next class.

Differentiated Activities

110 km/hr

Draw and label a cube and a cylinder. Write how many faces and corners each has.

80 km/hr

Observe a water bottle and a dice. Identify their solid shapes. Write how many faces, edges and corners each has.

40 km/hr

Draw one spherical object and one cylindrical object you see around you. Name each shape clearly.

Home Task

Find any three solid objects at home (like a box, ball or bottle). Draw them in your notebook. Write their names and identify their solid shapes.

Period 2

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a fun recall game from our last class. I will say the name of an object and you will tell me its shape. Ready?

SHOULD DO

5 MIN.

Teacher: Dice?

Teacher: Yes, cube.

Teacher: Ball?

Teacher: Right, sphere.

Teacher: Can or bottle?

Teacher: Correct, cylinder.

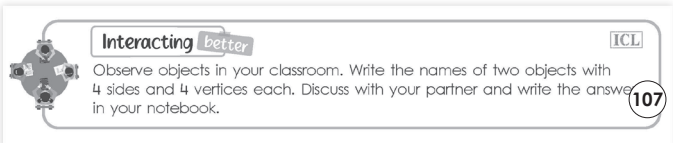
Teacher: You are remembering so well. This shows we are ready to go deeper into geometry. Now, please open your Main Coursebook to page 107.

Interacting better

MUST DO

5 MIN.

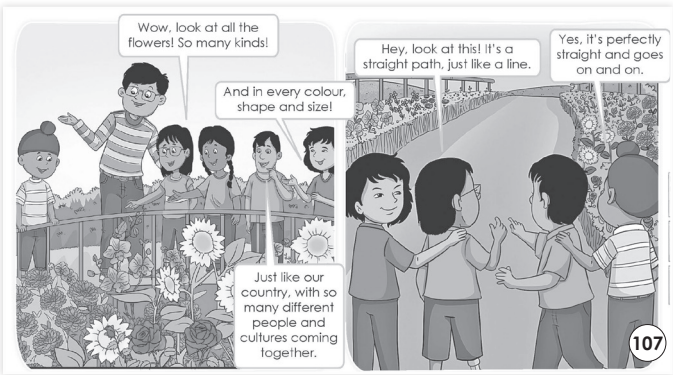
Teacher: Everyone, please look at the 'Interacting better' section on page 107.

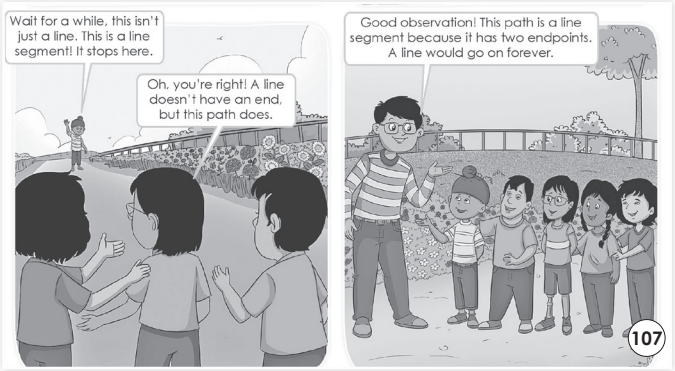


Teacher: Observe objects in your classroom. Write the names of any two objects with 4 sides and 4 vertices each.

Teacher: Talk to your partner and share your observations.

Teacher: Discuss and write your answers in your notebook.





Teacher: Before we read the story, let me ask you a few questions.

MUST DO
15 MIN.

Teacher: Have you seen garden paths or walking tracks in parks?

Teacher: What do they look like? Are they straight or curved?

Teacher: Do you think they are endless or do they stop at some point?

Teacher: Great. Now, we are going to read a story where our friends are observing such a path and talking about lines and line segments.

Teacher: Let us read the story on page 107. We will take turns. I will point to the dialogue and one student will read it aloud. The next student will explain what it means in simple words.

Teacher: Excellent reading.

You may show the **Animation** given on the digital platform.

Teacher: What did the students first think the path was?

Teacher: Yes, they thought it was a line.

Teacher: Later, what did they realise it actually was?

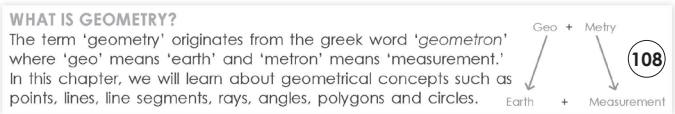
Teacher: Correct, they realised it was a line segment.

Teacher: How did they understand the difference between a line and a line segment?

Teacher: Very good. A line goes on forever in both directions, but a line segment has two endpoints.

Teacher: Let us turn to next page 108 and learn about geometry.

What Is Geometry?



Teacher: Let us now understand what geometry means.

Teacher: The word 'geometry' comes from two Greek words – 'geo' meaning earth and 'metron' meaning measurement.

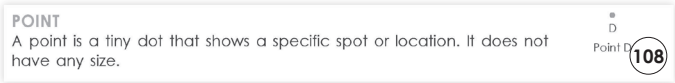
MUST DO
5 MIN.

Teacher: This means geometry helps us measure and understand shapes and space around us.

Teacher: When you arrange your books on a shelf or draw a rectangle in your notebook, you are using geometry.

Teacher: In this chapter, we will explore shapes, lines, angles, polygons and more. Let us continue with the point.

Point



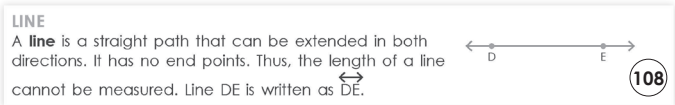
Teacher: A point is a small dot that marks a specific location. It has no size, but we can name it.

MUST DO
5 MIN.

Teacher: For example, if you mark the place where your water bottle is kept on a map of the classroom, that dot will be a point.

Teacher: Look at the book, Point D is marked. We use capital letters to name points.

Line



Teacher: Now, let us understand what a line is.

Teacher: A line is a straight path that goes endlessly in both directions. It has no starting or ending point.

MUST DO
5 MIN.

Teacher: Imagine the railway track going off into the distance. It feels like it goes on and on. That is like a line.

Teacher: In your book, Line DE is shown with arrows on both sides. This tells us it does not stop. Very good.

Teacher: Wonderful work today. Let us have a huge round of applause for our efforts. See you in the next class.

Differentiated Activities

110 km/hr

Draw a line and explain in one sentence why its length cannot be measured.

80 km/hr

Draw a line and label it, using capital letters at both ends.

40 km/hr

Draw a line and mark arrows on both sides to show it goes on.

Home Task

Look around your home and draw any one object that reminds you of a line. Write what the object is and why you think it looks like a line.

Period 3

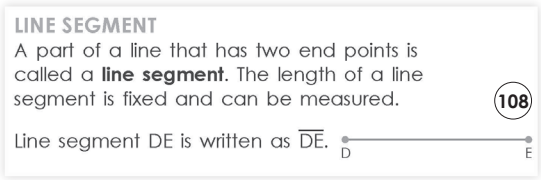
Teacher: Good morning students. How are you today?

Teacher: Let us start with a quick game. I will describe something and you will tell me whether it is a point or a line.

SHOULD DO
5 MIN.

Teacher: A tiny mark on a map showing your house.
Teacher: Yes, it is a point.
Teacher: A road that goes on without end in both directions.
Teacher: Correct, that is like a line.
Teacher: Very good. Today, we will learn about line segments and rays. Open your Main Coursebook to page 108.

Line Segment

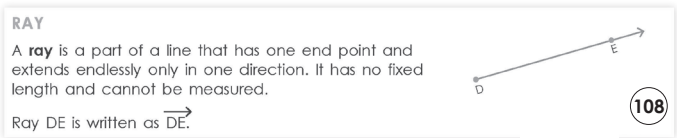


Teacher: A line segment is a part of a line that has two endpoints. This means it begins at one point and ends at another.

MUST DO
5 MIN.

Teacher: Unlike a line, which goes on forever, a line segment has a fixed length.
Teacher: Can you think of anything in the classroom that looks like a line segment?
Teacher: Yes, the edge of your ruler or the top of your notebook.
Teacher: Since it starts and ends at clear points, we can measure its length using a scale.
Teacher: Look at the diagram in your book. Line segment DE is written as DE with a bar on top and has two dots at the ends.
Teacher: Great observation. Let us remember line segments can be measured because they are fixed.

Ray



Teacher: Now, let us learn about a ray. A ray is also a part of a line, but it is different from a line segment.

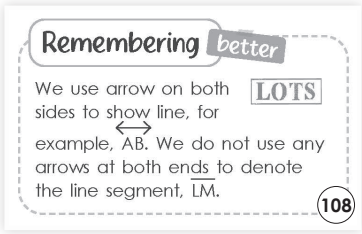
MUST DO
5 MIN.

Teacher: A ray has one endpoint and goes on endlessly in one direction.
Teacher: Think of the beam of a torch. It starts at the torch and goes on in one direction. That is just like a ray.
Teacher: Look at the diagram of Ray in your book. One end has a dot and the other has an arrow. That arrow shows it goes on.
Teacher: So, a ray has no fixed length. We cannot measure it.
Teacher: Excellent. Now you know how rays are different from line segments.

Remembering better

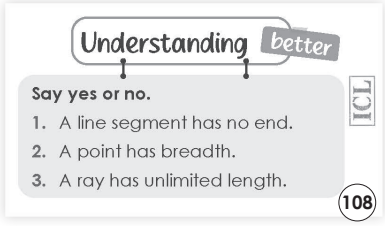
Teacher: Let us move to the 'Remembering better' section now.

MUST DO
5 MIN.



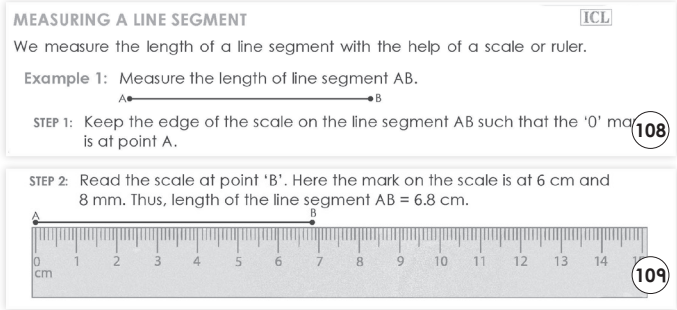
Teacher: We use arrows on both ends to show a line, for example.
Teacher: But for a line segment like , we do not use arrows at both ends because it has fixed endpoints.

Understanding better



Teacher: Let us now move to the 'Understanding better' section.
Teacher: Say 'Yes' or 'No' as I read these statements aloud.
Teacher: A line segment has no end.
Teacher: No.
Teacher: A point has breadth.
Teacher: No.
Teacher: A ray has unlimited length.
Teacher: Yes.
Teacher: Well done. You understood these ideas very clearly.
You may show the **Explainer Video** given on the digital platform.

Measuring a Line Segment



Teacher: Now we will learn how to measure a line segment.

MUST DO
5 MIN.

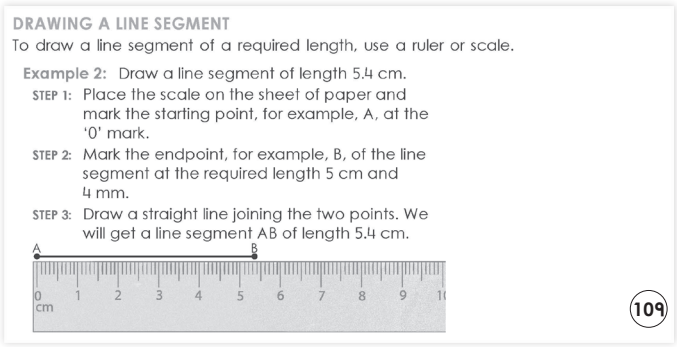
Teacher: To do this, we place the scale on the line so that the zero mark is at the starting point.

Teacher: Then, we look at the mark where the line segment ends.

Teacher: If one end is at 0 cm and the other end is at 6.8 cm, then the length of the line segment is 6.8 cm.

Teacher: Let us try measuring the edge of your notebook now.

Drawing a Line Segment


DRAWING A LINE SEGMENT

To draw a line segment of a required length, use a ruler or scale.

Example 2: Draw a line segment of length 5.4 cm.

STEP 1: Place the scale on the sheet of paper and mark the starting point, for example, A, at the '0' mark.

STEP 2: Mark the endpoint, for example, B, of the line segment at the required length 5 cm and 4 mm.

STEP 3: Draw a straight line joining the two points. We will get a line segment AB of length 5.4 cm.

109

Teacher: Now let us learn how to draw a line segment.

Teacher: First, place your scale on the paper and mark point A at the zero mark.

MUST DO
5 MIN.

Teacher: Then, mark point B at 5.4 cm.

Teacher: Join A and B using a straight line. This is line segment AB of length 5.4 cm.

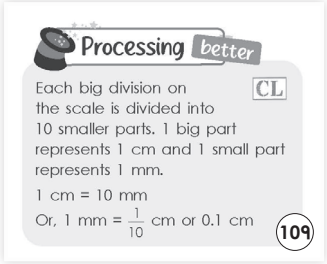
Teacher: Try drawing it on your own now.

Processing better

Teacher: Everyone, look at the 'Processing better' section.

Teacher: It explains how each part of the ruler shows centimetres and millimetres.

MUST DO
5 MIN.


Processing better

CL

Each big division on the scale is divided into 10 smaller parts. 1 big part represents 1 cm and 1 small part represents 1 mm.

1 cm = 10 mm

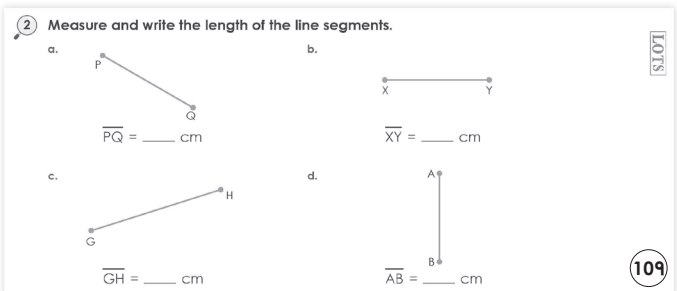
Or, 1 mm = $\frac{1}{10}$ cm or 0.1 cm

109

Teacher: 1 cm has 10 smaller parts. So, if you count 5 small parts, it means 5 mm.

Teacher: This helps us measure line segments more accurately.

MUST DO
5 MIN.


2 Measure and write the length of the line segments.

LOTS

a. P Q $\overline{PQ}$ = ____ cm

b. X Y $\overline{XY}$ = ____ cm

c. G H $\overline{GH}$ = ____ cm

d. A B $\overline{AB}$ = ____ cm

109

Teacher: Let us now solve Exercise 2, given on page 109.

Teacher: You need to measure the line segments and write their lengths.

Teacher: Take your ruler and begin with question (a).

Teacher: What do you observe for PQ? Place your ruler from point P to point Q and check where it ends.

Teacher: Now do the same for XY, GH and AB.

Teacher: Make sure you place the ruler in such a way that the starting point of the line segment is at the 0 mark of the scale.

Teacher: Well done, everyone. Let us give ourselves a big round of applause. See you in the next class.

Differentiated Activities

110 km/hr

Use your ruler to measure the length of your pencil, eraser and notebook. Write the length of each object in centimetres.

80 km/hr

Measure the length of your pencil and one side of your maths book. Write the lengths in centimeters.

40 km/hr

Measure the length of your pencil with a ruler. Write the measurement in centimetres.

Home Task

Solve Exercise 1 given on page 108 in the Main Coursebook.

Period 4

Teacher: Good morning, students. How are you?

Teacher: In the previous period, we learnt about line segments and shapes. Do you remember the difference between a line segment and a line?

SHOULD DO
5 MIN.

Teacher: Yes, a line segment has two endpoints, whereas a line goes on forever.

Teacher: Great. Now, let us think about shapes. Can anyone tell me what an open figure is?

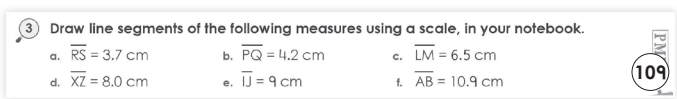
Teacher: Yes, an open figure starts at one point and ends at another, but the ends are not connected.

Teacher: Now, can anyone tell me what a closed figure is?

Teacher: Yes, a closed figure starts and ends at the same point, forming a complete shape.

Teacher: Wonderful. We are going to learn more about open and closed figures today. Everyone please open page 109 in the book.

MUST DO
10 MIN.


3 Draw line segments of the following measures using a scale, in your notebook.

PAIR

a. $\overline{RS}$ = 3.7 cm b. $\overline{PQ}$ = 4.2 cm c. $\overline{LM}$ = 6.5 cm

d. $\overline{XZ}$ = 8.0 cm e. $\overline{IJ}$ = 9 cm f. $\overline{AB}$ = 10.9 cm

109

Teacher: Let us now move on to Exercise 3. In this exercise, we will draw line segments based on the measurements provided.

Teacher: For question a, we need to draw a line segment that is 3.7 cm long.

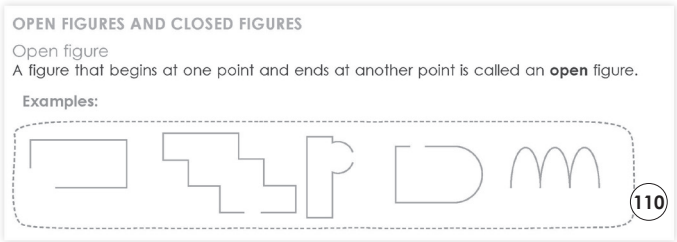
Teacher: Please use your scale to draw the line segment and make sure it is exactly 3.7 cm long.

Teacher: Next, for question b, we need to draw a line segment that is 4.2 cm long.

Teacher: Measure carefully using your scale. Let us continue with the next questions. Take your time and make sure your measurements are accurate.

Open Figures and Closed Figures

Open Figure



Teacher: Now, let us talk about open figures. An open figure begins at one point and ends at another, but the ends are not connected.

MUST DO
5 MIN.

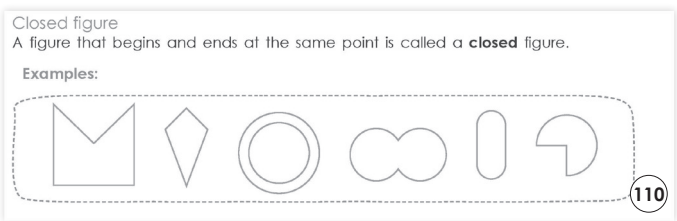
Teacher: For example, look at this figure. (draw a line with gaps on the board). It starts here and ends here, but it does not connect. This is an open figure.

Teacher: Can anyone think of other examples of open figures?

Teacher: Yes, a broken line or an incomplete rectangle could be examples of open figures.

Teacher: Now, let us try drawing a few open figures together. You can make a shape that starts here and ends there but does not connect the ends.

Closed Figure



Teacher: Now, we will discuss the closed figures. A closed figure begins at one point and ends at the same point, forming a complete shape.

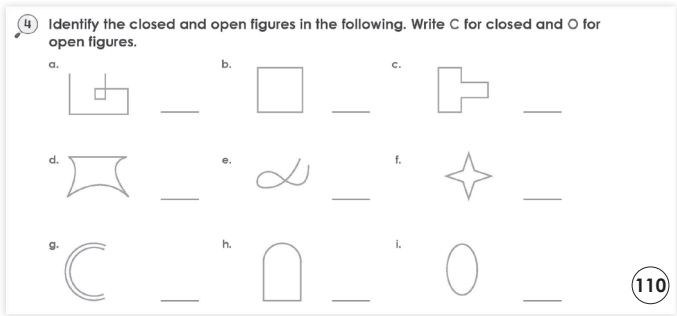
MUST DO
5 MIN.

Teacher: In your book, on page 110, there are examples of closed figures. Look at these shapes (point to the closed shapes in the book) where the ends meet, like circles and squares.

Teacher: Can anyone think of examples of closed figures from the world around us?

Teacher: Great. A coin, a circle or a square are all examples of closed figures.

Teacher: Now, let us draw a few closed shapes together. Try drawing a shape where the ends meet to form a complete figure.



Teacher: Let us now move on to Exercise 4 on page 110. In this exercise, we will identify whether the figures are open or closed.

MUST DO
5 MIN.

Teacher: I will show you a figure and you need to write 'C' for closed or 'O' for open next to the figure.

Teacher: Let us do the first few together. Look at question a: Is this figure open or closed?

Teacher: Yes, this is an open figure because the two ends do not meet.

Teacher: Now, look at question (b): Is this figure closed?

Teacher: Correct. This is a closed figure because the ends meet. Keep working on the rest of the questions on your own.

Teacher: Let us do an interesting activity. We will create open and closed figures using string and paper.

COULD DO
10 MIN.

Teacher: First, take a piece of string. Lay it out on your desk.

Teacher: Now, form a zigzag or a line that does not close. This is an open figure.

Teacher: Once you have done that, trace around the string with your pencil on the paper.

Teacher: Next, take another piece of string and form a closed shape, like a circle, triangle or square.

Teacher: Make sure the ends meet to form a closed shape.

Teacher: Trace around this closed shape on your paper.

Teacher: Observe both shapes and label them as open or closed.

Teacher: Well done, everyone. You did fantastic work creating open and closed figures. Let us have a huge round of applause for our hard work today. See you in the next period.

Differentiated Activities

110 km/hr

Draw an open figure using 4 straight lines. Then, draw a closed figure using 5 straight lines. Now, label them as open or closed. Write a short sentence about when you might see these shapes in real life, like in architecture or nature.

80 km/hr

Draw an open figure and a closed figure using straight lines. Label the shapes as open or closed.

40 km/hr

Draw one open figure and one closed figure. You may take help of your classmate.

Home Task

Draw an open or closed shape and label it. Write where you might see this shape in real life and explain why it is open or closed.

Period 5

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a warm-up. I will describe a figure and you tell me what it is.

SHOULD DO — 5 MIN.

Teacher: It has three sides and three corners. What is it?

Teacher: Yes, it is a triangle.

Teacher: It has four sides and all angles are equal. What is it?

Teacher: Correct, it is a square.

Teacher: Great. Now, we are going to start a new topic today – polygons.

Polygons

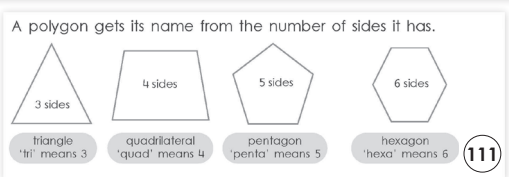
Teacher: Everyone, please open your books to page 110.

Teacher: A polygon is a simple closed figure made up of three or more-line segments. These line segments are called sides.

MUST DO — 10 MIN.

POLYGONS

A simple closed figure made up of three or more line segments is called a **polygon**. The line segments of a polygon are called its sides. The point at which two adjacent line segments meet is called a **corner** or a **vertex**. 110



Teacher: Where two sides meet is called a corner or vertex.

Teacher: Now, look at the different shapes in the picture. A triangle has 3 sides, a quadrilateral has 4, a pentagon has 5 and a hexagon has 6.

Teacher: The name of the polygon depends on how many sides it has.

Teacher: Can anyone guess what a polygon with 7 sides is called?

Teacher: Yes, a heptagon. Let us repeat the names of polygons up to 10 sides together.

Remembering better

Teacher: Now, let us move to the 'Remembering better' section. Let us quickly read it.

MUST DO — 5 MIN.

Teacher: I am going to give you a challenge. I will say the number of sides and you tell me the name of the polygon.

Teacher: Ready?

Teacher: 7 sides.

Teacher: Yes, heptagon.

Teacher: 8 sides?

Teacher: Correct, octagon.

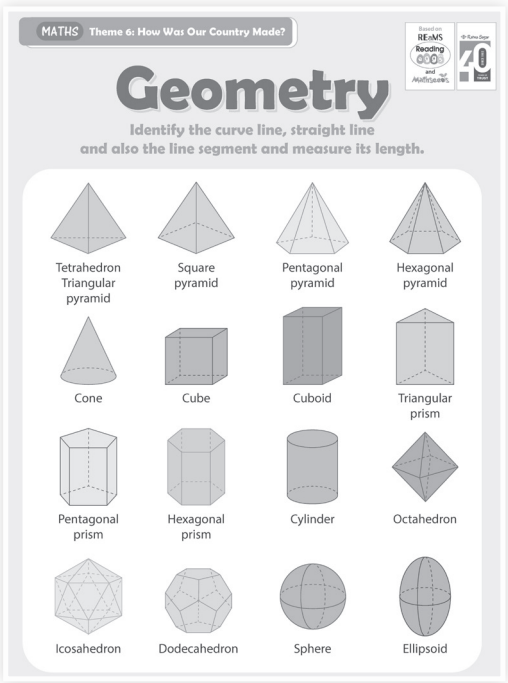
Teacher: 9 sides?

Teacher: Well done, nonagon.

Teacher: And what about 10 sides?

Teacher: Excellent, decagon. Well done students.

Poster



Teacher: Now, let us look at the big colourful poster of 3D shapes.

MUST DO — 5 MIN.

Teacher: Who can tell me the name of the pink shape in the first row, first column?

Teacher: Yes, it is a tetrahedron. It is also called a triangular pyramid.

Teacher: Now look at the blue shape next to it. What is that?

Teacher: Correct, a square pyramid.

Teacher: How many flat faces does a cube have?

Teacher: Yes, 6 square faces.

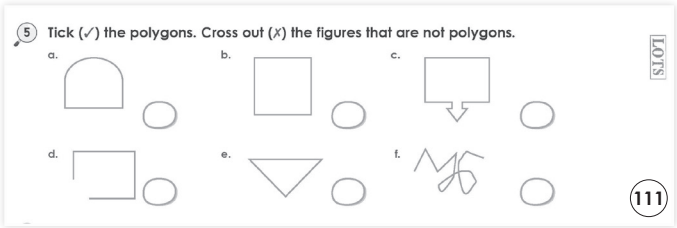
Teacher: Now look at the sphere. Can you see any flat surface on it?

Teacher: No, it is completely curved.

Teacher: Let us play a quick game. I will name a shape and you have to find it in the poster and point to it.

Teacher: Ready? Find the cylinder. Find the cone. Find the hexagonal prism.

Teacher: Great work everyone. This poster helps us to connect names with their shapes. Keep observing.



Teacher: Everyone, please open your books to Exercise 5, given on page 111.

MUST DO

5 MIN.

Teacher: It says, 'Tick the polygons. Cross out the figures that are not polygons.' Let us understand what this means.

Teacher: Look at the shape given in question (a). It has a curved line. Is this a polygon?

Teacher: No, because polygons are made only of straight lines. So, we put a cross on it.

Teacher: Now, shapes in questions (b) and (e). Are these made of straight, closed lines?

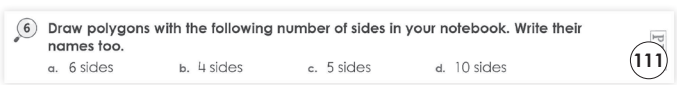
Teacher: Yes, so we tick those.

Teacher: Now, work with your partner sitting next to you. Discuss and decide whether each shape is a polygon or not. Use your pencil to put a tick or a cross.

Teacher: After you finish, compare your answers with another pair sitting near you.

Teacher: If you have different answers, discuss why. I will help if needed.

You may show the **Animated Activities** given on the digital platform.



Teacher: Now, let us start Exercise 6. You will draw different polygons and write their names.

MUST DO

10 MIN.

Teacher: Let us begin with question (a). It says draw a polygon with 6 sides. What is it called?

Teacher: Yes, a hexagon.

Teacher: First, sit in groups of three and talk to each other about where you have seen hexagon shapes.

Teacher: After the discussion, draw a neat hexagon in your notebook. Make sure it has 6 straight sides and all corners are joined.

Teacher: Now, label your drawing with the name of the polygon.

Teacher: You will now follow the same steps for question (b), (c) and (d).

Teacher: First, discuss in your group and name the polygon. Then draw it in your notebook and write its name.

Teacher: If you forget the names, you can look at the shapes given earlier in the book.

Teacher: Take your time and draw carefully. I will come around to help if needed.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Draw a polygon with 8 sides. Name it and write what 'octa' means.

80 km/hr

Write the names of any 4 polygons and the number of sides each has.

40 km/hr

How many sides does a triangle have? How many sides does a square have?

Home Task

Draw any 3 polygons you see around your home. Write their names and number of sides.

Period 6

Teacher: Good morning students. How are you today?

Teacher: Let us revise what we did in the last class. I will ask you a few quick questions.

SHOULD DO

5 MIN.

Teacher: What is the name of a 7-sided polygon?

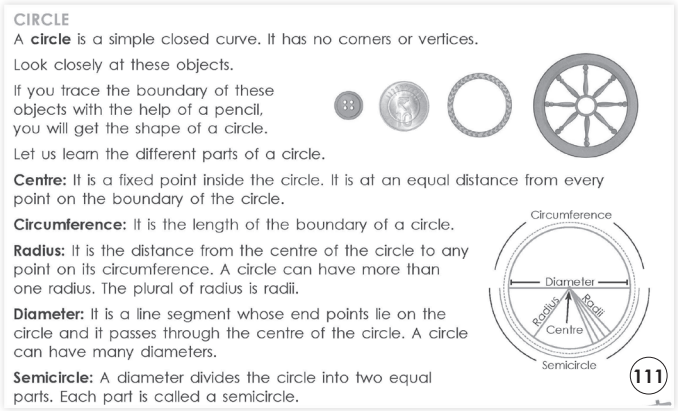
Teacher: Yes, heptagon.

Teacher: What do we call a 10-sided polygon?

Teacher: Correct, decagon.

Teacher: Now let us begin our new topic – the circle.

Circle


CIRCLE

A **circle** is a simple closed curve. It has no corners or vertices.

Look closely at these objects.

If you trace the boundary of these objects with the help of a pencil, you will get the shape of a circle.

Let us learn the different parts of a circle.

Centre: It is a fixed point inside the circle. It is at an equal distance from every point on the boundary of the circle.

Circumference: It is the length of the boundary of a circle.

Radius: It is the distance from the centre of the circle to any point on its circumference. A circle can have more than one radius. The plural of radius is radii.

Diameter: It is a line segment whose end points lie on the circle and it passes through the centre of the circle. A circle can have many diameters.

Semicircle: A diameter divides the circle into two equal parts. Each part is called a semicircle.

111

Teacher: Everyone, open your books to page 111.

Teacher: Let us learn about the circle. Look at the pictures on the top - button, coin, bangle, wheel. What do they have in common?

MUST DO
10 MIN.

Teacher: Yes, they all have round shapes. That shape is called a circle.

Teacher: A circle is a simple closed curve. Does it have corners or straight lines?

Teacher: No, a circle has no corners and no straight lines. It is round and smooth.

Teacher: Now, look at the blue diagram of the circle in your book. There is a dot in the middle. What is it called?

Teacher: Yes, that dot is called the centre. It is at the same distance from all points on the circle.

Teacher: Now look at the line from the centre to the boundary. What is that line called?

Teacher: It is the radius. A circle can have many radii.

Teacher: If we draw a line that goes from one side of the circle to the other, passing through the centre, what do we call it?

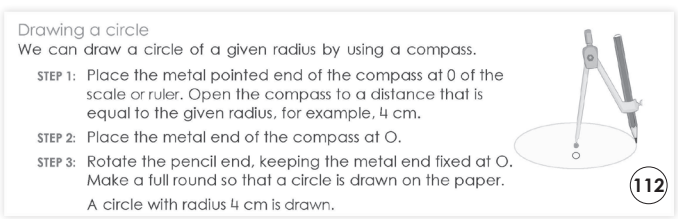
Teacher: That is called the diameter. Very good.

Teacher: Now look at the word 'circumference.' That is the length of the boundary of the circle. You can say it is like the edge of the circle.

Teacher: One more thing, if we draw a diameter and fold the circle along it, what will happen?

Teacher: It will divide into two equal parts. Each part is called a semicircle.

Drawing a Circle


Drawing a circle

We can draw a circle of a given radius by using a compass.

STEP 1: Place the metal pointed end of the compass at 0 of the scale or ruler. Open the compass to a distance that is equal to the given radius, for example, 4 cm.

STEP 2: Place the metal end of the compass at O.

STEP 3: Rotate the pencil end, keeping the metal end fixed at O. Make a full round so that a circle is drawn on the paper.

A circle with radius 4 cm is drawn.

112

Teacher: Have you ever used a compass before? What can we draw with it?

MUST DO
10 MIN.

Teacher: Yes, it helps us draw a perfect circle.

Teacher: Let us take out your geometry boxes. Do you see a compass inside?

Teacher: Hold your compass. It has two parts.

Teacher: When you want to draw a circle with a 3 cm radius. Where will you place the metal tip?

Teacher: Correct, on 0 of the scale.

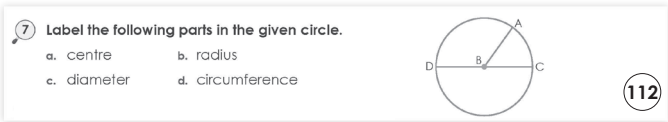
Teacher: Now open the compass until it reaches 3 cm. This distance becomes your radius.

Teacher: Place the metal point on your notebook. Now carefully rotate the pencil side, keeping the metal point fixed.

Teacher: What shape did you get?

Teacher: Yes, a circle.

Teacher: Let us try again with 5 cm. This time, try it without help and see if you can manage on your own.


7 **Label the following parts in the given circle.**

a. centre b. radius

c. diameter d. circumference

112

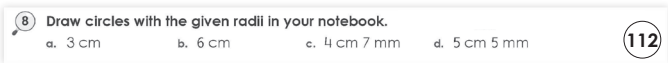
Teacher: Everyone please look at Exercise 7.

Teacher: You have to label the parts of the given circle – centre, radius, diameter and circumference.

MUST DO
5 MIN.

Teacher: Use the diagram and write the correct name near each part.

Teacher: Work carefully and raise your hand if you need help.


8 **Draw circles with the given radii in your notebook.**

a. 3 cm b. 6 cm c. 4 cm 7 mm d. 5 cm 5 mm

112

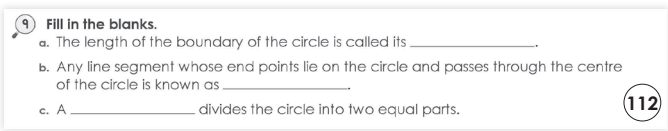
Teacher: Now, let us draw circles with given radii in Exercise 8. Look at question (a): 3 cm.

MUST DO
5 MIN.

Teacher: Use your compass and ruler. Set the compass to 3 cm and draw the circle.

Teacher: Now draw another circle for question (b), which is 6 cm.

Teacher: Make sure your drawings are neat and accurate.


9 **Fill in the blanks.**

a. The length of the boundary of the circle is called its _____.

b. Any line segment whose end points lie on the circle and passes through the centre of the circle is known as _____.

c. A _____ divides the circle into two equal parts.

112

Teacher: Let us now solve Exercise 9. It is a fill-in-the-blanks activity.

Teacher: Read question (a): The length of the boundary of a circle is called its...

MUST DO
5 MIN.

Teacher: Yes, circumference.

(Guide the students to complete the exercise.)

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Why is the diameter always longer than the radius? Explain in one line.

80 km/hr

What is the name of the line that joins the centre to any point on the boundary?

40 km/hr

What do we call the boundary of a circle?

Home Task

Complete question (c) and question (d) from Exercise 8, given on page 112 in the book.

Period 7

Teacher: Good morning students. How are you today?

Teacher: Let us warm up by revising circles.

SHOULD DO 5 MIN.

Teacher: What is the fixed point inside the circle called?

Teacher: Yes, the centre.

Teacher: What is the line from the centre to the boundary called?

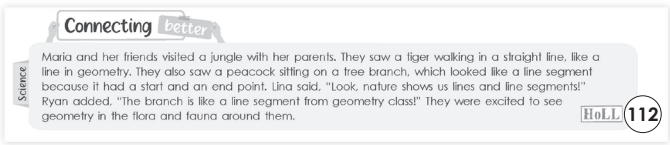
Teacher: That is right, the radius.

Teacher: Excellent. Let us now connect our learning to the real world.

Connecting better

Teacher: Everyone, please look at the 'Connecting better' section, given on page 112.

MUST DO 5 MIN.


Connecting better

Science

Maria and her friends visited a jungle with her parents. They saw a tiger walking in a straight line, like a line in geometry. They also saw a peacock sitting on a tree branch, which looked like a line segment because it had a start and an end point. Lina said, "Look, nature shows us lines and line segments!" Ryan added, "The branch is like a line segment from geometry class!" They were excited to see geometry in the flora and fauna around them.

HoLL 112

Teacher: Maria and her friends visited a jungle. They saw a tiger walking in a straight line. What does that remind you of?

Teacher: Yes, a straight line in geometry.

Teacher: Then they saw a peacock sitting on a branch. Why did it look like a line segment?

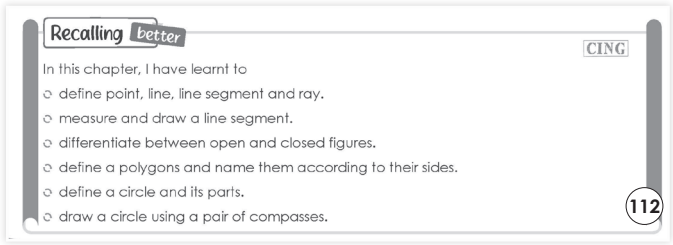
Teacher: Because it had a start and an end point.

Teacher: Look around you. Nature shows us many shapes. Can you think of any other examples?

Recalling better

Teacher: Let us move to the 'Recalling better' section. I will ask you some questions based on everything we have learnt in this chapter. Be ready to answer.

Teacher: What is a point in geometry?


Recalling better

CING

In this chapter, I have learnt to

- define point, line, line segment and ray.
- measure and draw a line segment.
- differentiate between open and closed figures.
- define a polygons and name them according to their sides.
- define a circle and its parts.
- draw a circle using a pair of compasses.

112

Teacher: Yes, it shows a location and has no length or width.

MUST DO 10 MIN.

Teacher: What do we call a straight path that goes on endlessly in both directions?

Teacher: Correct, a line.

Teacher: What is the difference between a line and a line segment?

Teacher: A line segment has two end points, while a line has none.

Teacher: Can you tell me how to measure a line segment?

Teacher: Yes, using a ruler or scale.

Teacher: What is the name of a closed figure with three sides?

Teacher: A triangle.

Teacher: How many sides does a hexagon have?

Teacher: Six. Well done.

Teacher: What is the fixed point in a circle called?

Teacher: Centre

Teacher: And what is the boundary of a circle known as?

Teacher: Circumference

Teacher: How can we draw a perfect circle?

Teacher: Yes, by using a compass

Teacher: What is one-fourth of a circle called?

Teacher: A quadrant

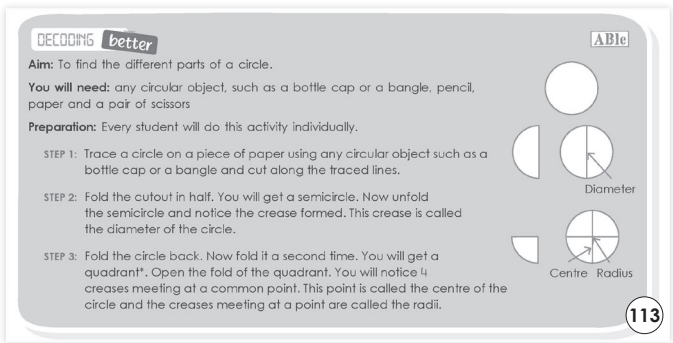
You may show the **I Explain** given on the digital platform.

Teacher: Excellent. You have remembered so many things from this chapter. Let us move to 'Decoding better' section.

Decoding better

Teacher: Let us do an activity to explore parts of a circle using paper.

MUST DO 15 MIN.


DECODING better

ABIc

Aim: To find the different parts of a circle.

You will need: any circular object, such as a bottle cap or a bangle, pencil, paper and a pair of scissors

Preparation: Every student will do this activity individually.

STEP 1: Trace a circle on a piece of paper using any circular object such as a bottle cap or a bangle and cut along the traced lines.

STEP 2: Fold the cutout in half. You will get a semicircle. Now unfold the semicircle and notice the crease formed. This crease is called the diameter of the circle.

STEP 3: Fold the circle back. Now fold it a second time. You will get a quadrant*. Open the fold of the quadrant. You will notice 4 creases meeting at a common point. This point is called the centre of the circle and the creases meeting at a point are called the radii.

Diameter

Centre Radius

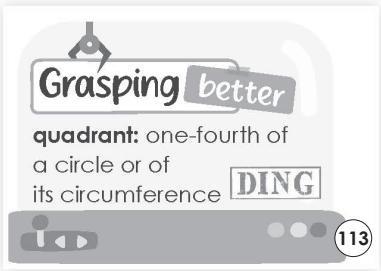
113

(Guide the student to complete the activity.)

Grasping better

Teacher: Let us revisit the meaning of 'quadrant.'

Teacher: A quadrant is one-fourth of a circle or its circumference.

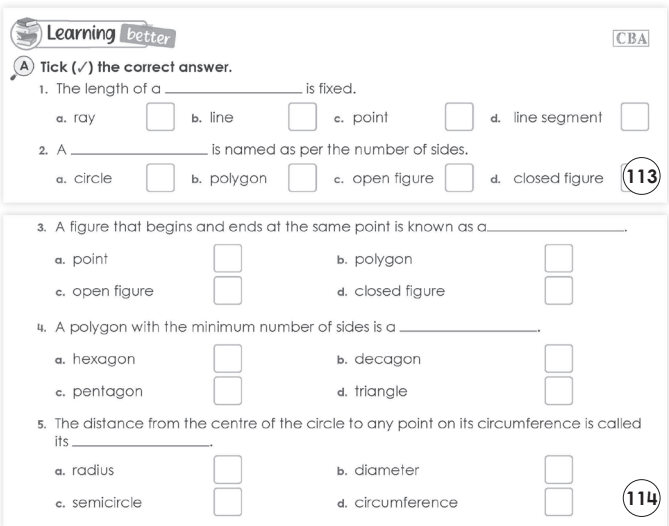


Teacher: When we fold the circle into four equal parts, each part is called a quadrant.

Learning better

Teacher: Let us solve Exercise A. I will read the question and you choose the correct answer.

MUST DO
5 MIN.



(Guide the students to complete the questions.)

Teacher: Continue solving the rest. Raise your hand if you need help.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Draw a circle and mark its radius, diameter and centre. Label them clearly.

80 km/hr

Define radius and diameter. Write one difference between them.

40 km/hr

What is the centre of a circle? What is the line segment that passes through it called?

Home Task

Solve questions of the 'Solving better' section given on page 113 in the book.

Period 8

Teacher: Good morning students. How are you today?

Teacher: Let us revise what we did yesterday.

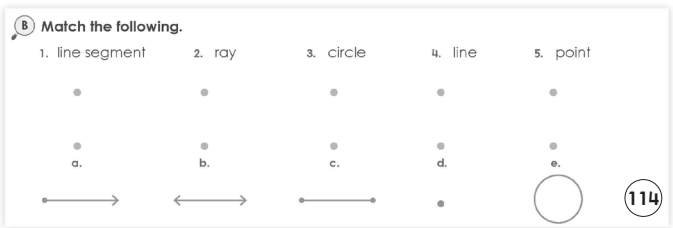
SHOULD DO
5 MIN.

Teacher: What is the name of one-fourth of a circle?

Teacher: Yes, a quadrant.

Teacher: What do you call a shape with no sides or corners but a boundary?

Teacher: That is right, a circle. Let us continue with some more fun exercises.



Teacher: Let us look at Exercise B, given on page 114. This is a matching task. You have to match the names of figures with their correct images.

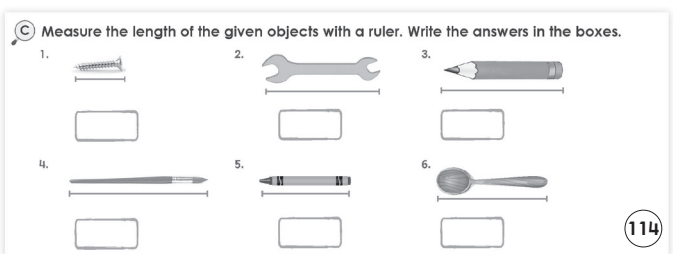
MUST DO
5 MIN.

Teacher: Look at number 1. What do we call a line that has two end points?

Teacher: Yes, a line segment.

Teacher: Match it to the correct arrow.

Teacher: Now complete the rest. Raise your hand if you are unsure.



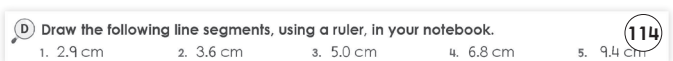
Teacher: In this exercise, you will measure the length of some objects using a ruler.

MUST DO
5 MIN.

Teacher: Start with question 1. Measure the screw and write the length.

Teacher: Do the same for the other objects.

Teacher: Be careful to read the scale correctly and write the answers in the boxes.

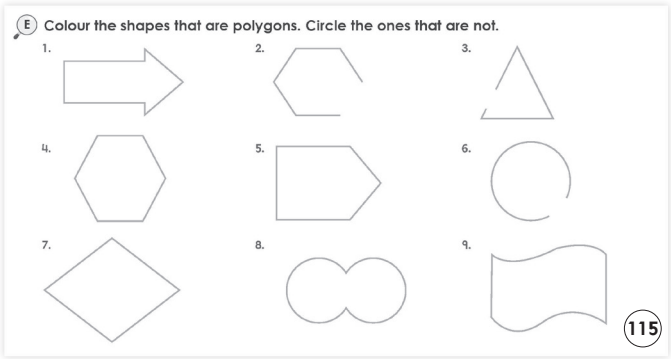


Teacher: Take out your rulers. In Exercise D, you will draw line segments of different lengths.

MUST DO
10 MIN.

Teacher: Let us do the first one together – draw a line segment of 2.9 cm.

Teacher: Now complete the rest on your own. Check that your scale starts from zero.



Teacher: In this task, you will colour the shapes that are polygons and circle the ones that are not.

MUST DO
5 MIN.

Teacher: Remember, a polygon must be made of straight lines and should be closed.

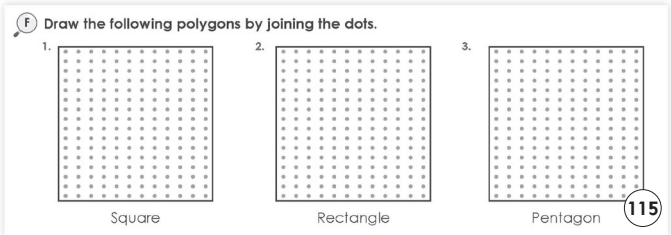
Teacher: Look at shape 3 – triangle. Is it a polygon?

Teacher: Yes, so colour it.

Teacher: What about shape 6? It has a curved side. Is it a polygon?

Teacher: No, so you should circle it. Continue with the rest on your own.

You may show the **Infographic** given on the digital platform.



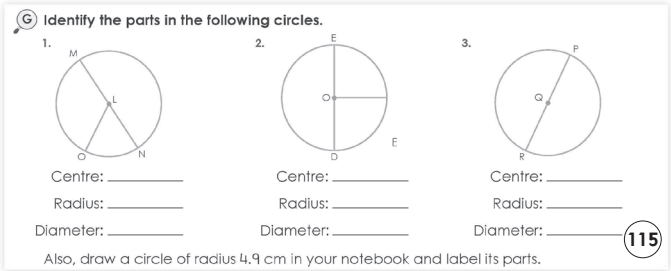
Teacher: Now look at Exercise F. You have to draw polygons by joining dots.

MUST DO
5 MIN.

Teacher: Start with the square. Join four dots to make equal sides.

Teacher: Then draw the rectangle and pentagon in the same way.

Teacher: Take your time and make sure all lines are straight.



Teacher: In Exercise G, label parts of a circle.

Teacher: For each figure, write the correct name of the centre, one radius and the diameter.

MUST DO
5 MIN.

Teacher: After you label, draw a circle of radius 4.9 cm in your notebook and label its parts too.

Teacher: Use your compass carefully.

Teacher: Well done, everyone. Let us have a huge round of applause for our hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Draw five different polygons. Measure and write the length of each side. Label the shape and identify if it is regular or irregular.

80 km/hr

Draw three polygons – one triangle, one quadrilateral and one pentagon. Write the number of sides and corners for each. Measure the length of sides.

40 km/hr

Draw a triangle and a square. Colour them and count aloud the number of sides.

Home Task

Measure the length of a glass, a spoon and a sketch pen at home using a ruler. Write their names and lengths in centimetres in your notebook.

Bring 'Little book' to complete the 'Revising better' activity.

Period 9

Teacher: Good morning students. How are you today?

Teacher: Let us play a quick recall game.

SHOULD DO
5 MIN.

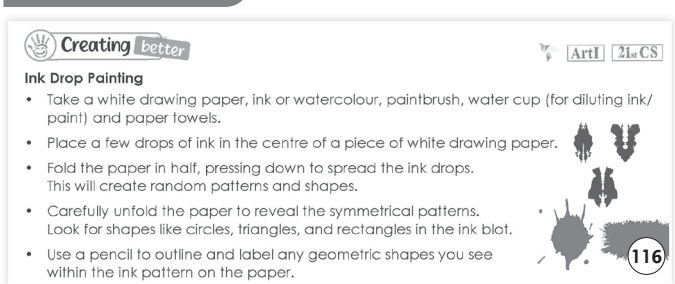
Teacher: What shape is formed when you fold a circle into four parts?

Teacher: Yes, a quadrant.

Teacher: What tool do we use to draw a perfect circle?

Teacher: That is right, a compass. Let us begin our creative work today.

Creating better



Teacher: Today, we are going to explore symmetry using ink drop painting.

(Guide students to complete the activity.)

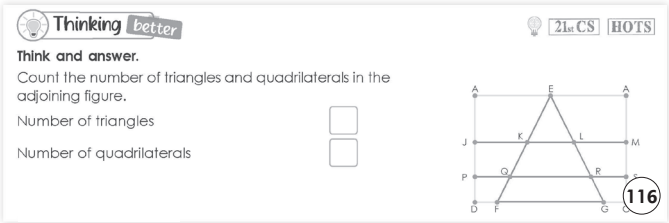
MUST DO 15 MIN.

You may show the **HOTS** given on the digital platform.

Thinking better

Teacher: Now turn to the triangle figure. Count the number of triangles and quadrilaterals inside the grid.

MUST DO 5 MIN.



Teacher: Think carefully before answering.

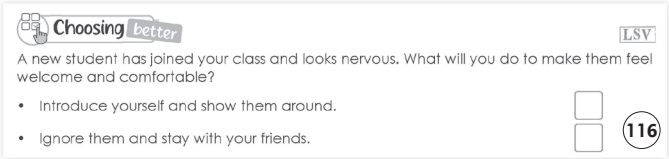
Teacher: Let us work together first. Who would like to share their count?

Teacher: Well done. Now note it down in your book.

Choosing better

Teacher: Everyone, please look at the 'Choosing better' section.

MUST DO 5 MIN.



Teacher: A new student has joined the class and is feeling nervous. What should we do to make them feel comfortable?

Teacher: Should we ignore them and stay only with our friends?

Teacher: Or should we introduce ourselves and help them look around?

Teacher: Yes, we should always choose to be kind and welcoming.

Teacher: Why do you think introducing ourselves is a good choice?

Teacher: It makes them feel included and safe.

Teacher: Have you ever been new somewhere? How did you feel?

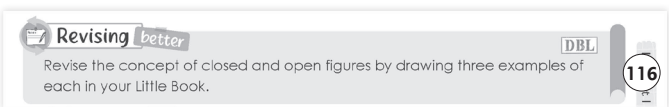
Teacher: Let us always remember to support one another, especially when someone is new or alone.

Revising better

Teacher: Now let us move to the 'Revising better' section.

MUST DO 5 MIN.

Teacher: Everyone, please open your Little Book.



Teacher: Today, we will revise the concept of open and closed figures.

Teacher: Can someone remind us – what is an open figure?

Teacher: Yes, it does not start and end at the same point. It leaves a gap.

Teacher: And what is a closed figure?

Teacher: Correct, it starts and ends at the same point with no gap.

Teacher: Now in your Little Book, draw three examples of open figures. You can use lines or curves.

Teacher: Then, draw three closed figures like a triangle, rectangle or circle.

Teacher: Take your time and if you finish early, explain one of your drawings to a partner.

You may show the **Quiz** given on the digital platform.

Pledging better

Teacher: Now let us look at the 'Pledging better' section.

MUST DO 5 MIN.

Teacher: Read the line in your book silently first.

Teacher: It says, 'I pledge to learn about our freedom fighters and their sacrifices. '

Teacher: Why is it important to learn about people who helped build our country?

Teacher: Yes, because they worked hard for our rights and freedom.

Teacher: Can you name one freedom fighter you have heard of?

Teacher: Very good.

Teacher: Now let us all say the pledge together with respect.

Teacher: I pledge to learn about our freedom fighters and their sacrifices.

Teacher: Let us follow this not just by words, but in actions too, by reading and sharing what we learn.

Teacher: Well done, everyone. You have all done a fantastic work today. Let us give ourselves a big round of applause for our hard work and creativity. See you in the next class.

Differentiated Activities

110 km/hr

Create a riddle sheet using five geometry terms from the chapter (e.g., radius, line segment, quadrilateral, etc.). Write one riddle for each and ask your partner to guess the answers.

80 km/hr

Fold a sheet into four parts. In each part, draw a different shape (circle, triangle, square, rectangle). Write how many sides and corners each shape has and one real-world example.

40 km/hr

Pick objects in your classroom that are in the shape of cube or sphere. Write down their shape, colour and sides.

Home Task

Find one object at home for each of the following 3D shapes: sphere, cube and cone. Write down the name of each object and describe one feature. Draw each shape and label the number of faces, edges and corners.

Period 10

Teacher: Good morning students. How are you today?

Teacher: Let us begin with a quick warm-up based on the poster.

SHOULD DO
5 MIN.

Teacher: I will describe shapes from the poster and you tell me what they are.

Teacher: This shape has no corners and no edges.

Teacher: Yes, it is a sphere.

Teacher: This solid has 1 curved face and 1 flat face.

Teacher: Correct, that is a cone.

Teacher: This shape has 6 faces, 12 edges and 8 corners.

Teacher: Yes, cube is the correct answer.

Teacher: Let us revise more with our worksheets.

Worksheet 1

Theme 6: How Was Our Country Made?

10. Geometry

Worksheet 1

A. Fill in the blanks.

1. A _____ is an exact position.
2. The length of a _____ is fixed.
3. A _____ has no corner or vertex.
4. A 6-sided polygon is called _____.
5. The length of the boundary of a circle is called _____.

B. Complete the given table.

	Solid shapes	Faces	Edges	Corners
1.	Cone			
2.	Cube			
3.	Cuboid			
4.	Cylinder			
5.	Sphere			

C. Name the following figures.

1. 

_____

2.

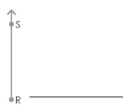
_____

3. 

_____

4. 

_____

5. 

_____

6. 

_____

40

Teacher: Now, take out Workbook. We will solve worksheet 1 given on page 40.

Teacher: Let us begin with Exercise A. I will read the sentences and you will fill in the blanks.

MUST DO
15 MIN.

Teacher: Now, move to Exercise B. Complete the table showing the number of faces, edges and corners of each solid shape. Use the models or the poster as reference.

Teacher: In Exercise C, work with your partner to identify the figures. Decide whether each is a line, ray or line segment based on the direction and symbols.

Teacher: Once you have finished, exchange your answers with another pair and check each other's responses.

Worksheet 2

Worksheet 2

A. Fill in the blanks.

1. A _____ is a part of a line.
2. The plural of radius is _____.
3. A _____ is a 4-sided polygon.
4. The point at which two adjacent line segments meet is called a/an _____.
5. A figure that begins and ends at the same point is called a _____ figure.

B. Measure the length of each of the following line segment, using a ruler.

1. 

$\overline{XY}$ = _____ cm

2.

$\overline{PQ}$ = _____ cm

3. 

$\overline{DE}$ = _____ cm

4.

$\overline{RS}$ = _____ cm

5. 

$\overline{LM}$ = _____ cm

6. 

$\overline{AB}$ = _____ cm

C. Read the following statements. Name the figure each statement is about.

1. A solid shape with 1 curved face. _____
2. A closed figure with 5 sides and 5 corners. _____
3. A simple closed curve with no corner or vertex. _____
4. A solid shape with 6 faces, 12 edges and 8 corners. _____
5. A figure that begins at one point and ends at another point. _____

41

Teacher: Let us move to Worksheet 2 given on page 42.

Teacher: In pairs, read each sentence in Exercise A and fill in the blanks with the correct words. Discuss your answers with your partner.

MUST DO
15 MIN.

Teacher: Use your ruler to measure each line segment in Exercise B. Write the length in centimetres. Do this on your own.

Teacher: Let us read the first question: 'A solid shape with 1 curved face.'

Teacher: Yes, the answer is cone.

Teacher: Now complete the remaining questions on your own. Use the shapes around you or in the poster to help if you are unsure.

Meditation Exercise

COULD DO 5 MIN.

Teacher: Sit quietly in your place and close your eyes gently.

Teacher: Take a deep breath in… and slowly breathe out.

Teacher: Let your mind relax and settle.

Teacher: Keep breathing slowly and calmly.

Teacher: When you are ready, open your eyes softly and sit up straight.

Differentiated Activities

110 km/hr

Draw a geometric shape of your choice (triangle, square, circle, rectangle) and divide it into smaller sections (e.g., a square into smaller squares). Label the sides, corners and angles of the divided shapes. Write two properties for each shape.

80 km/hr

Go on a 'Shape Scavenger Hunt' in your or classroom. Find 5 objects that match geometric shapes (circle, square, triangle, rectangle, hexagon).Write down each object and its corresponding shape. Describe its properties. Choose 3 items you found and measure their dimensions (e.g., length of a rectangle, diameter of a circle).

40 km/hr

Draw a straight line and a curved line. Label each line. Identify one object in your room that has a straight line and one that has a curved line.

Home Task

Create a project by following the instructions:

- View basic geometric shapes (e.g., square, rectangle, circle, triangle) and their properties (sides, angles).
- Collect objects or pictures from around the classroom or home that match specific shapes.
- Find and note their properties (e.g., 'The book is a rectangle with 4 right angles').
- Create a collage using cut-out shapes from coloured paper, labelling each shape and its properties.
- Let us present their collages to the class, explaining the shapes and their properties.
- Review the shapes found and discuss their real-life applications.
- Bring your project in the next period and discuss what you have learnt about geometric shapes and their properties.

Period 11

SHOULD DO 5 MIN.

Teacher: Good morning students. How are you feeling today?

Teacher: Let us begin with a quick recall from yesterday. I will describe a property and you tell me the correct shape or term that matches it.

Teacher: This shape has no edges and no corners.

Teacher: Yes, it is a sphere.

Teacher: This is a part of a line with two fixed endpoints.

Teacher: Correct, it is a line segment.

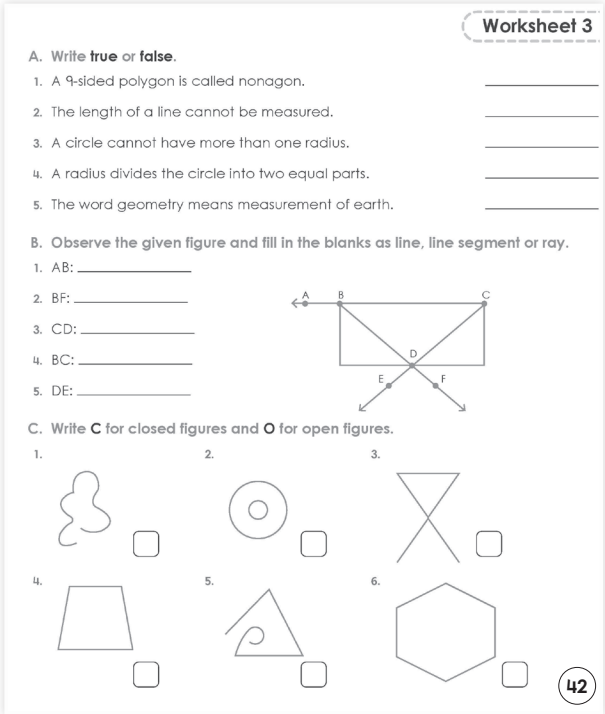
Teacher: This starts at a point and goes on endlessly in one direction.

Teacher: Yes, that is a ray.

Teacher: Now that we are ready, let us begin Worksheet 3.

You may show the **Slideshow** given on the digital platform.

Worksheet 3



Worksheet 3

A. Write **true** or **false**.

1. A 9-sided polygon is called nonagon. _____
2. The length of a line cannot be measured. _____
3. A circle cannot have more than one radius. _____
4. A radius divides the circle into two equal parts. _____
5. The word geometry means measurement of earth. _____

B. Observe the given figure and fill in the blanks as line, line segment or ray.

1. AB: _____
2. BF: _____
3. CD: _____
4. BC: _____
5. DE: _____

C. Write **C** for closed figures and **O** for open figures.

1. 2. 3. 4. 5. 6.

42

(Guide the students to complete worksheet.)

MUST DO 15 MIN.

You may generate additional practice worksheets using the **Test Generator** given on digital platform.

Book of Holistic Teaching

Chapter 10: Geometry

HoLL MDA

A English

Write the antonym for the word, 'MEASUREABLE'.

B Science

Today, Ryan's Appa bought a football for him. Ryan is excited to go play football in the playground. To stay safe while playing, he needs to follow some important rules. What are two safety rules Ryan should follow while playing football?

C Social Studies

Tani Razi is the highest mountain peak in Arunachal Pradesh whose height is 4,579 m. Mention some of

16

(Refer to the Book of Holistic Teaching, page 16 under the title 'Geometry.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.)

MUST DO
10 MIN.

Book of Project Ideas

Chapter 10: Geometry

- View basic geometric shapes (e.g., square, rectangle, circle, triangle) and their properties (sides, angles). PRO 21st CS
- Collect objects or pictures from around the classroom or home that match specific shapes.
- Find and note their properties (e.g., "The book is a rectangle with 4 right angles").
- Create a collage using cut-out shapes from coloured paper, labelling each shape and its properties.
- Let us present their collages to the class, explaining the shapes and their properties.
- Review the shapes found and discuss their real-life applications.
- Share with friends what they learned about geometric shapes and their properties.

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(Please discuss the project assigned in the previous period, focusing on helping students understand the objectives and addressing any challenges they faced.)

MUST DO
5 MIN.

Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column we will write what we have learnt in this chapter.

SHOULD DO
5 MIN.

Teacher: Think about the topics, have we learnt and write them in the 'L' column of the chart. (Wait for students to fill in the chart.)

Teacher: Let us all give a huge round of applause to everyone for their hard work and creativity. Great work, everyone. See you in the next class. Have a wonderful day ahead

Differentiated Activities

110 km/hr

Identify 4 solid shapes around you (e.g., cube, sphere, cone, cylinder, pyramid). Write their names and describe their properties.

80 km/hr

Draw a cube, a sphere and a cone. Label the faces, edges and corners of each shape. Write one property of each shape (e.g., A cube has 6 square faces.)

40 km/hr

Build a model of a 3D shape using clay or playdough. You can choose a cube, sphere or cylinder.

Home Task

Practise the questions discussed in the chapter.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	• accurately measure and draw line segments and shapes (using rulers and compasses.
Socio-Emotional and Ethical Development	• work cooperatively in pairs or groups to complete activities like drawing shapes and measuring line segments, demonstrating teamwork and communication skills.
Cognitive Development	• identify and classify geometric shapes , such as squares, triangles and cubes and describe their properties like edges, faces and corners.
Language and Literacy Development	• verbally explain the differences between lines, line segments and rays and describe the properties of shapes using geometry-specific vocabulary.
Aesthetic and Cultural Development	• recognise geometric shapes in real-life objects (e.g., buildings, nature), linking these shapes to cultural and practical applications.
Positive Learning Habits	• engage actively in activities like drawing, measuring and classifying shapes, demonstrating initiative and attention to detail in all tasks.

Starry Knights

Do you find teaching Geometry interesting? Was it easy for your learners to learn polygons? Please mention a few interesting incidents.

Reward yourself with a STAR.